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泰雅語之事件的概念化與動詞分類

Event conceptualization and verb classification in Squliq
Atayal

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口試委員會審定書

泰雅語之事件的概念化與動詞分類
Event conceptualization and verb classification in Squliq Atayal

本論文係葉郁婷君（D93142001）在國立臺灣大學語言學研究所完成之博士學位論文，於民國 102 年 7 月 31 日承下列考試委員審查通過及口試及格，特此證明

口試委員：

　　　　　　　　（簽名）
　　（指導教授）

授，是我的論文提案口試老師，她給予我的許多寶貴建議讓我的論文有機會進入妥善的境界。其他優秀的師長，吳靜蘭教授、鄧芳青教授、李佩容教授以及湯愛玉教授等，認真與嚴謹的研究與治學態度之外，還擁有著女性學者的纖細特質，總是理性地給予我指正與鼓勵。

語言所的學長們。謝富惠教授與 Michael Tanangkingsing 教授，在組裡討論裡分享成熟的觀點以及謙卑的研究態度，鼓舞了我不少；他們也同樣是我的論文口試老師，在短促的審閱論文的時間裡，仍提出不少有意義的問題，讓我進行深入的思辯。黃惠如教授，認真與細心地面對並解決語言學問題的態度，也激勵著我，是一位很願意分享想法與生活的難得夥伴。
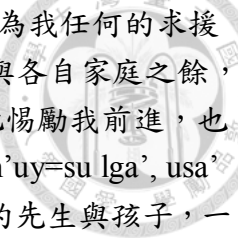
以上，以及我所閱讀過其著作的其他南島語或非南島語語言學學者，都是我學習的典範，我有幸能感受他們嚴謹且正確的研究精神，讓不成熟的我繼續朝向智識與心靈上的完滿，並期將他們的精神傳承下去。

除了嚴謹的研究生活外，在台大語言所中，還有許多珍貴的生命體。美玲助教，擁有美麗的聲音與工整的字跡，在學生事務上協助我逐一完成外，她還會在適切的時機點給予我受用且理性的智慧。劉姐以及白小姐爽朗的聲音總為語言所的週間每日帶來朝氣。萱芳與盈潔，成熟豁達的處世態度，是我望塵莫及的。其他還有見到面就會彼此相互打氣、願意分享生活的學弟妹們，人鳳、國樹、智凱、Sophia、承諭、玥彤、聖富…等無數，都讓樂學館三樓的曾經與現在充滿生命力。還有三位因語言學而認識的好朋友，中研院的志憲，年輕卻沉穩，在空閒時輔助我解決電腦上偶遇的難題。靜靜聽我說話、給我打氣的 Okay。很願意分享經驗給我的 Eve。

回到生活裡， Lavai、Kiku、Zeze 與 Ludjem 等親密的朋友，對我有所期待外，也如家人一般地，隨著我的有所得而歡欣，在我沮喪時給予鼓勵。

敬愛的長輩們。Ici' Tali' 姨丈雖早在進入博士班之初就回去做了天上的星星，與他近五年深入研究泰雅知識時，他溫文謙卑的態度是我學習的典範。Mama' Yakas 也已化作一顆星，在繁雜的台北街頭熱心地接送我做田調，並熱切地分享泰雅知識給我。Mama' Sehu' Tana'，即使疾病纏身，常告訴我要回家，用其僅剩微弱的語氣將泰雅的知識與精神傳給我；他疼惜著晚輩，時時提醒我要照顧好身體，雖在我拿取學位數月前離去化作明亮的星，他仍持續地指引著我。Yata' Ciwas Batu'，耐心地教我泰雅語。還有其他在這漫長田調旅途裡，遇到或是相認的長輩，也同樣用溫和謙卑的態度分享許多知識給我。

敬愛的家人。因我的歡欣而歡欣，因著我的愁而愁、但卻又立即地轉而給予

iii

我心靈與實質的幫忙。公婆、大伯與小叔，願意體諒之外，也會為我任何的求援而待命。姐姐們/弟弟，有緊密的情感聯繫網，他們在盡心於工作與各自家庭之餘，願意保留空間疼惜我。敬愛的母親—Hama' Ihil，除了無時無刻地惕勵我前進，也給予我心靈上最堅韌與深邃的支持，總是對我說：laxi' koyey！m'uy=su lga', usa' hngaw cikay ha'！敬愛的父親—Hilo' Tali'給予深遠的關心。敬愛的先生與孩子，一直陪伴著我，理解、等待與鼓勵著，在取得學位之前的數月身體狀況極不佳時，盡可能地協助我，無論是用歡笑或是醫療協助。

　　這是一條讓我理解生命裡自己不可能是孤單一人的漫漫長路，一個個體的茁壯是無時無刻地都需要來自其他個體的協助。能與以上種種緣的結識，特別是有幸讀得每一緣裡最美麗的部分，都是讓我得以成長的珍貴養分，在日後因之能更加精進。感謝這一路上的所有緣。

摘要

　　這篇論文的目的在於，透過在一個新架構之建立後，對泰雅語賽考利克方言的動詞進行分類，而這新的架構是根據在 Fillmore（1975, 1976, 1977, 1982, 1985)的框架理論（Frame Theory）、Johnson（1987)的圖示理論（Schema Theory）以及 Talmy（2000）的「圖-底」（Figure-Ground)之二分理論上。這些理論都屬於認知語言學的知識。

　　如同多數菲律賓語類型的語言，泰雅語的主語可以透過四種語態結構來標示出，諸如，「主事語態」(AV)結構中要突顯的多是行動者角色的主語；在「受事語態」(PV)結構中，則是受事者主語；在「處所語態」(LV)結構中，則是要突顯處所主語；在「傳達語態」(CV)結構中，其主語則是工具或受益者論元；後三種結構通常一併被歸類在「承受者」(undergoer)語態結構之下。然而，透過自然言談語料的觀察，我們注意到這些語態結構的諸多複雜性，其複雜性可以從至少兩個事實中看出：其一，並不是任一動詞的所有三種「承受者標記形式」(UV form)，亦即-un, -an 與 s-等形式，都以相同的認知過程進入所謂的發展成熟之四分語態系統中；其二，不同的動詞有選用不同承受者來標記承受者主語的傾向。針對第一個面向，我們發現到，任一承受者形式位置之被填入，至少是要為了表達三種功能裡之任一或任二種使能進行，包括：（一）、能呈現動詞語意所投射出之「內在承受者」（intrinsic undergoer)與突顯這承受者之「承受形式之假定值」(default UV form)兩者間之固有關係的功能，(二)、能反映事件事實性(reality)之差異或因應不同情境需求去表達所談論之承受者之細微差異等的功能，以及（三）、為了標記應用語態（applicative voice)之主語承受者的功能。在這三種功能之中，第二種功能需要在任一動詞之第一與第三種較基本的功能都確定好之後，使能進行確認。承此，這份動詞分類研究終究是建立在第一與第三功能之互有關係的結果上，並且是一份以 UV 形式為根基的分類；此外，我們會發現，動詞的語意才是決定任一動詞的四種動詞形式之獲得的關鍵因素。

　　於是，透過檢驗三百餘動詞所反映之事件參與者的空間與概念的相互關係以及其所呈現的詞法行為（morphosyntactic behavior），我將論證，任一動詞的「內在承受者」(intrinsic undergoer)可以被賦予「圖」(Figure)或是「底」(Ground)的概念值，並且，這概念值確實會借助各自動詞的「承受形式之假定值」(default UV form)去顯示其在中性語境裡最為顯著之參與者的地位，這「承受形式之假定值」(default UV form)與「內在承受者」（intrinsic undergoer)所具備的概念值之搭配得到的結果，正是任一動詞所屬的類別；因此，在這樣的研究中，我們區辨出如下五個主要的動詞類別：

第一類：*-un* 形式動詞類別（The *-un* verb class）

第二類：*-an* 形式動詞類別（The *-an* verb class）

第三類：*s*-形式動詞類別 (The *s*- verb class)

第四類：*s-/-an* 形式混成動詞類別 (The *s-/-an* composite verb class)

第五類：*s-/-un* 形式混成動詞類別 (The *s-/-un* composite verb class)

　　更進一步地，因應著事件在本質上是可以進行抽象的圖示化，我們依據圖示，再在每一個主要類別之下區分出一至八不等之次類，因此，我們目前得到二十個圖示；任一的動詞即為所屬圖示的例子。

　　透過這冗長的研究，我們或能感受或是理解認知語言學學者（諸如，Fauconnier (1985, 1999)、Lakoff (1982, 1987, 1990)、Langacker (1976, 1987, 2002)、Johnson (1987)、Johnson-Laird (1983)、 Talmy (1975, 1983, 1985, 1988, 2000) 等等）所堅持的觀點，亦即，語言是，語言使用者根據其具象的生活經驗後，將這些經驗經由認知機制的作轉化後、並包含著認知過程中可能做的解釋等種種結果之集合體，而並不是一個自我包含、置外於情境的封閉系統。

關鍵字: 底、圖、圖示、動詞類別、內在承受者、承受形式之假定值

ABSTRACT
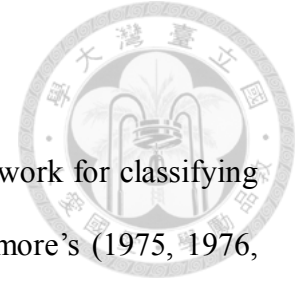
A central goal of the present study is to develop a novel framework for classifying verbs in Squliq Atayal into various types in terms of Charles Fillmore's (1975, 1976, 1977, 1982, 1985) Frame Theory, Mark Johnson's (1987) notion of schemas and Leonard Talmy's (2000) Figure-Ground distinction-- concepts that are now familiar in cognitive linguistics.

As in many Philippine-type languages, Squliq Atayal has four ways to encode the subject of a verb. That is, Actor Voice (AV) is usually used to encode an actor subject, Patient Voice (PV) a patient subject,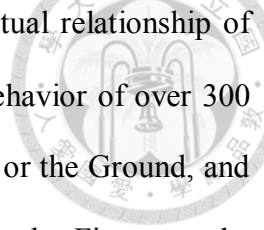 Location Voice (LV) a location subject and Conveyance Voice (CV) an instrument or a beneficiary subject. The last three voice types are further grouped into Undergoer Voice (UV). However, a closer scrutiny of naturally occurring data shows that there is a complex reality in the way voice constructions are employed in two aspects. Firstly, not all three UV forms of a verb, i.e. *-un*, *-an*, and *s-*, are found to fill their respective slots in a so-called full-fledged four-way voice system via *equal* processing. Secondly, different verb types prefer different UV forms to code subjects. Filling in any UV form slot is contingent on meeting one or two of the three functions: (i) the encoding of an inherent relationship between a verb's intrinsic undergoer and its default UV form, (ii) the encoding of an intrinsic undergoer for signaling the reality distinction or for exhibiting subtle semantic differences, and (iii) the encoding of an applicative undergoer. Of the three functions, (ii) is far more complex, since all possible conditions are not identified until a decision is made on (i) and (iii). That is, the nature of verb classification investigated in the present study ultimately hinges on interrelated results that derive from (i) and (iii), which is an UV-based classification. Besides, it is now commonplace that the availability of all the four voice forms for a given verb is lexically specific.

It is argued that, based on an examination of the spatio-conceptual relationship of participants in the event a verb encodes and the morphosyntactic behavior of over 300 verbs, the intrinsic undergoer of a verb is assigned either the Figure or the Ground, and a verb has a default UV voice form typically used to make either the Figure or the Ground participant the subject of a clause and thus more prominent. The pairing of the default UV form and the default status of the intrinsic undergoer determines the class of a verb. Five major verb classes are then identified:

(I)   The *-un* verb class: Undergoer as the Figure (e.g., *hkani'* 'search for', *lamu'* 'pick', and *naga'* 'wait for')

(II) The *-an* verb class: Undergoer as the Ground (e.g., *gyah* 'open', *wayaw* 'choose', and *'luy* 'find')

(III) The *s-* verb class : Undergoer as the Figure (e.g., *gihu'* 'turn', *ruruw* 'push', and *tbaziy* 'sell')

(IV) The *s-/-an* composite verb class: Undergoer as the Figure specified by the *s-* form and Undergoer as the Ground specified by the *-an* form of a verb (e.g., *biq* 'give', *paqut* 'ask', and *qapax* 'paste')

(V)   The *s-/-un* composite verb class: Undergoer as the Figure specified by the *s-* form and Undergoer as the Figure specified by the *-un* form of a verb (e.g., *kal* 'discuss; talk about', and *syuk* 'act in turn; retaliate; answer')

Furthermore, for each of the five major classes identified, further subtypes can be distinguished, depending on the nature of the schematization of events. Specific verbs can be thought of as instantiating specific event schema type. A total of 20 schemas have been identified.

The bulk of the dissertation study is devoted to justifying the ways events are schematized and verbs are classified. To cognitive linguistics (e.g. Fauconnier (1985, 1999), Lakoff (1982, 1987, 1990), Langacker (1976, 1987, 2002), Johnson (1987), Johnson-Laird (1983), Talmy (1975, 1983, 1985, 1988, 2000), and among others), language is viewed as the result of general cognitive mechanisms and processes

grounded in embodied experiences, rather than as a self-contained, context-independent system. We hope to demonstrate that the typing of verbs in Squliq Atayal can be shown to be largely grounded in embodied experiences that underpin the various schema types identified above.

Key words: default UV form, Figure, Ground, intrinsic undergoer, schema, verb class

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

1		2	
3		ACTRNMZ	actor nominalizer
AF	Agent focus	APPL1	applicative marker 1
APPL2	applicative marker 2	ASP	aspectual marker
AV	Actor voice	BV	Beneficiary voice
CA	*Ca*-reduplication	CAUS	causative
CV	Conveyance voice	DEM	demonstrative
DET	determiner	DM	discourse marker
DUR	durative	EXT	existential marker
EXCL	exclamation	FIL	filler
FP	final particle	FUT	future
FR	free form	GEN	genitive
HORT	hortative	IMM	Immediate
IMP	imperative	IV	Instrumental voice
LOC	Locative case	LOCNMZ	Locative nominalizer
LV	Locative voice	MOD	Modal
NAV	Nonagentive voice	NEG	negator
NEU	neutral	NGTV	negative
NOM	nominative	NPIV	Non-pivot (=neither pivot nor agent)
OBJNMZ	Object nominalizer	OBL	oblique
PE	plural exclusive	PI	Plural inclusive
PL	plural	PN	personal name
PRF	perfective	PRGO	progressive
PST	past	QUOT	quotative
RED	reduplication	REM	remote
RF	referential	RV	Referential voice
SG	singular	S.G	singular genitive
SN	singular neutral	SPEC	specific (phrase marker)
STAT	stative	STATNMZ	State nominalizer
TOP	topic	TP.LK	Topic linker

CHAPTER 1

INTRODUCTION

1.1 Introduction

The central goal of this dissertation is to develop a novel framework for classifying verbs in Squliq Atayal into various types in terms of Johnson's (1987) notion of schemas and Talmy's (2000) figure-ground distinction-- concepts that are now familiar in cognitive linguistics.

As in many Philippine-type languages, Squliq Atayal has four ways to code the subject of a verb. The Actor Voice (AV) is usually used to code an actor subject, the Patient Voice (PV) a patient subject, the Location Voice (LV) a location subject and the Conveyance Voice (CV) an instrument or a beneficiary subject. The last three voices are further grouped into Undergoer Voice (UV).

However, it is now commonplace that the availability of all the four voice forms for a given verb is lexically specific. A careful examination of the syntax of verbs in Squliq shows that (i) for verbs like *kita'* 'see', *ranga'* 'feed', *gyah* 'open' etc., the subjects coded by the PV and LV forms are found to be identical in category; both refer to the intrinsic undergoer of a verb; on the other hand, verbs like *qaniq* 'eat', *'agal* 'take', *naga'* 'wait for' and so on are, as expected, found to use their PV and LV forms to encode two distinct subject types, i.e., a patient subject and an applicative location subject, respectively; (ii) for verbs like *biq* 'give', *buling* 'throw', and *paqut* 'ask', their intrinsic undergoer is specified by their CV form and is categorized as a theme, instead of an instrument; in contrast, other verbs (e.g., *kita'* 'see', *ranga'* 'feed', *qaniq* 'eat' etc.), as expected, use their CV form to specify an instrument subject; (iii) depending on the context, the LV forms of most verbs have another, expected function, one that is used to
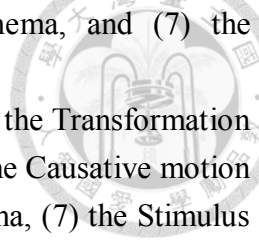
specify an applicative locative; likewise, nearly all verbs employ a CV form to code a beneficiary subject.

It will be argued that, based on an examination of the syntactic behavior of over 300 verbs, the intrinsic undergoer of a verb is assigned either the Figure or the Ground, and a verb usually has only one default UV form that is typically used to make either the Figure or the Ground participant the subject of a clause and thus more prominent. The pairing of the default UV form and the default conceptual status of the Undergoer determines the class of a verb. Five major verb classes are then identified:

(I)   The *-un* verb class: Undergoer as the Figure (e.g., *hkani'* 'search for', *lamu'* 'pick', and *naga'* 'wait for')

(II) The *-an* verb class: Undergoer as the Ground (e.g., *gyah* 'open', *wayaw* 'choose' and *'luy* 'find')

(III) The *s-* verb class: Undergoer as the Figure (e.g., *gihu'* 'turn', *ruruw* 'push', and *tbaziy* 'sell')

(IV) The *s-/-an* composite verb class: Undergoer as the Figure specified by the *s-* form and Undergoer as the Ground specified by the *-an* form of a verb (e.g., *biq* 'give', *paqut* 'ask', and *qapax* 'paste')

(V)   The *s-/-un* composite verb class: Undergoers as the two separate Figures respectively specified by the *s-* and the *-an* form of a verb (e.g., *kal* 'discuss; talk' and *syuk* 'respond; answer')

Furthermore, for each of the five major classes identified, further subtypes can be distinguished, depending on the nature of the schematization of events and the conceptualization of participants in events as well. Specific verbs can be thought of as instantiating specific event schema type. A total of 20 schemas have been identified and they are:

(A) Schemas for events encoded by verbs in the *-an* class include (1) the Placement (I) schema, (2) the Removal schema, (3) the Indivisibility schema, (4) the Possession
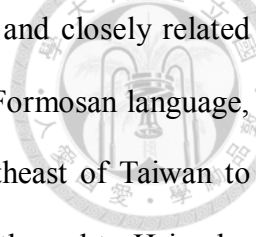
schema, (5) the Mediation schema, (6) the Fixedness schema, and (7) the Placement (II) schema.

(B) Schemas for events encoded by verbs in the -*un* class include (1) the Transformation schema, (2) the Taking schema, (3) the Gathering schema, (4) the Causative motion schema, (5) the Self-removing schema, (6) the Cognition schema, (7) the Stimulus schema, and (8) the Triggering schema.

(C) Schemas for events encoded by verbs in the *s-* class include (1) the Pushing schema, (2) the Generation schema, and (3) the Cause schema.

(D) The schema for events encoded by verbs in the *s-/-an* composite class is the Conveyance schema.

(E) The schema for events encoded by verbs in the *s-/-un* composite class is the Reciprocation schema.

Verbs under each verb type are regarded as instances of one respective schema. Besides, since event conceptualization or schematization occurs before linguistic representation, the basis of the aforementioned five major verb classes is the result of schematization.

The bulk of the dissertation study will be devoted to justifying the ways events are schematized and verbs are classified. For cognitive linguistics (e.g., Fauconnier (1985, 1999), Lakoff (1982, 1987, 1990), Langacker (1976, 1987, 2002), Johnson (1987), Johnson-Laird (1983), Talmy (1975, 1983, 1985, 1988, 2000), and among others), language is regarded as the result of general cognitive mechanisms and processes grounded in embodied experiences, rather than as a self-contained, context-independent system. I hope to demonstrate that the typing of verbs in Squliq Atayal can be shown to be largely grounded in embodied experiences.

1.2 The Squliq Atayal profile

Atayal is one of Austronesian languages spoken in Taiwan, also known as Formosan languages. Following Ferrell (1969), Formosan languages can be further divided into three independent groups-- Atayalic (Atayal and closely related languages), Tsouic

(Tsou and closely related languages), and Paiwanic group (Paiwan and closely related languages). According to Li (1980), Atayal is the most widespread Formosan language, covering eight prefectures. It ranges from I-lan County in the northeast of Taiwan to Wu-lai Hsiang in New Taipei City and to Tao-yuan County and southward to Hsin-chu County, Miao-li and Tai-chung City to Nan-tou and eastward to Hua-lien. The current population of Atayal is estimated around 83,800.[1] Based on Wei (1955:9), Li (1980, 1985, 1995, 1998, 2000), L. Huang (1995a, 1995b, 2000) and Rau (1992), Atayal consists of two major subgroups, namely Squliq and C'uli'.[2] As Tsuchida (1980, 1983), Li (1982, 1985) and L. Huang (1995a) observed, Squliq is the prestige dialect group and its dialects are homogeneous, while the C'uli' dialects are spoken in marginal areas and are rather heterogeneous. The Squliq dialects are the more innovative, whereas the C'uli' dialects are regarded more conservative because they retain more useful information for reconstruction.

The dialectal variant that is investigated in this study is Jian-shih Squliq Atayal, spoken in Jian-shih Hsiang, Hsin-chu County. All my three informants come from Hsin-le village, Jianshih Hsiang. Their background information is presented in the table below:

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[1] Statistics is from the data of Council of Indigenous Peoples, Executive Yuan (http://www.apc.gov.tw/portal/portal/chart/chartIndex.html?CID=7E2F2903CAF78E0298FDB51D8D47D979&ccateID=745A81AD372960C7D0636733C6861689&chartID=26667CF447F2AF64D0636733C6861689)

[2] As pointed out by Li (1982), the most famous distinction between Squliq and C'uli' is the latter showing certain distinctions between the male and the female forms of speech, but the former not making the distinctions. For more detailed research on the comparison between the two subgroups, please refer to Tsuchida (1980, 1983), Li (1982, 1985, 1988, 1995, 1998) and L. Huang (1995).

Table 1.1: The Squliq Atayal informants consulted in this research

Names in Atayal	Gender	Year of birth
Sehu' Tana'	Male	1938
Ciwas Batu'	Female	1937
Hama' Ihil	Female	1944

The data analyzed in this dissertation include both elicited and natural data. Since my goal of this study is verb classifying, elicited data is taken as the primary data; as for natural data, its function is a two-sided coin, namely, it is not only the origin for me to initiate the present study but also the reflection of my arguments.[3] In this study, I examine around 300 verbs, each further taken into around 10 constructions to define every verb's category (Chapter 6 to 9).

1.3 The organization of this dissertation

The remainder of this dissertation is organized as follows. Chapter 2 gives a grammatical sketch of the Squliq Atayal language, Chapter 3 is to address main issues to be examined in the present study by means of a review on some studies of Squliq Atayal and other Philippine-type languages, Chapter 4 provides the theoretical framework for this study, Chapter 5 is my methodology, Chapter 6 to 9 discuss five verbs classes, and Chapter 10 is the conclusion.

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[3] There are two sources for natural discourse data: one is from my own field notes and the other, Academia Sinica Formosan Language Archive (abbreviated as Sinica Archive henceforth), which can be accessed at http://formosan.sinica.edu.tw/.

CHAPTER 2

A SKETCH OF ATAYAL GRAMMAR

2.1 Introduction

In this chapter, I will provide a sketch of the essentials of Atayal grammar. This sketch consists of two parts: the first is concerned with basic phonological information, and the second is concerned with the morphosyntax of the language. Issues to be addressed in the second part include the word classes, the order of clausal constituents, the case-marking system, the pronominal system, the voice and tense/aspect/mood paradigm, the verb formation processes, and the verbal clause patterns. I begin with a discussion of the phonological system.

2.2 Phoneme inventory, syllables structure, and stress in Squliq Atayal

There are nineteen phonemic consonants and five phonemic vowels in Squliq Atayal, as illustrated in Table 2.1 and Table 2.2, respectively:[4]

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[4] The orthographic system adopted here is the same as the version published by the Council of Indigenous Peoples and the Ministry of Education in December 2005, which can be accessed at http://www.edu.tw/userfiles/url/20121127164752/aboriginal.pdf.

Table 2.1: Squliq Atayal consonant phonemes (Practical orthography)

	Place /Manner	Bi-labial	Alveolar	Alveo-palatal	Palatal	Velar	Uvular	Glottal
Stop	Voiceless	p	t			k	q	'
	Voiced							
Fricative	Voiceless		s			x		h
	Voiced	b	z			g		
Affricative	Voiceless			c				
Liquid	Voiced		l					
Nasal	Voiced	m	n			ng		
Trill	Voiced		r					
Glide	Voiced	w			y			

Table 2.2: Squliq Atayal vowel phonemes (Practical orthography)

Frontness\Height	Front	Central	Back
High	i		u
Mid	e		o
Low		a	

In Table 2.1, seven symbols are observed different from IPA symbols: "b" represents the voiced bilabial fricative /β/, "c" the voiceless alveopalatal affricative /ts/, "y" the palatal glide /j/, "g" the velar fricative /ɣ/, "ng" the velar nasal /ŋ/, "'" the glottal stop /ʔ/, "h" the glottal fricative /ħ/. Besides, as observed by Li (1980), the lateral fricative /l/ in word-final position is pronounced as a nasal /n/ in the speech of the younger speakers. As Li (*ibid.*) indicated, the word-initial "'" (/ʔ/) is left un-transcribed (e.g., /'a/ 'Filler' is written as *a* and /'abi'/ 'sleep' as *abi'*).

The five vowels in the inventory are /i, e, a, o, u/, as shown in Table 2.2. According to Li (1980:354), the mid vowels /e/ and /o/, derived from the diphthong /aj/ and /aw/ respectively, are less common in Squliq Atayal, as opposed to the three primary vowels /i, u, a/.
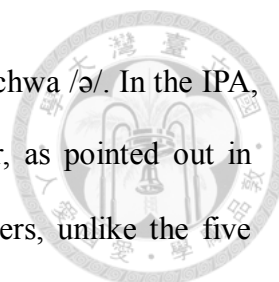
Another point regarding the orthography is the distribution of schwa /ə/. In the IPA, schwa /ə/ is often subsumed under the vowel inventory; however, as pointed out in Egerod (1966), Li (1980), Rau (1992), Lin (2004), and many others, unlike the five vowels in Table 2.2, /ə/ is non-phonemic, often heard between consonants, and is prohibited from the stressed syllable(s); moreover, since /ə/ is inserted between consonants, consonant clusters are not allowed in the language; the CC (e.g., *qhuniq* 'tree') or CCC (e.g., *krryax* 'everyday') sequence only occurs in the orthography.

In addition to the phonemes shown in Table 2.1 and Table 2.2, Squliq Atayal has six diphthongs (/aw, ay, uy, iw, iy, uw/), each taking the final syllable of a word as their only position (Li 1980: 356).

All syllables in the language have onsets; the most common syllable structures are as shown in (2.1):

(2.1)

	Syllable Type	Example
One Syllable	a. CV	(*su* '2nd singular genitive/nominative')
	b. CVC	(*qa'* 'demonstrative')
	b. CGVC	(*syan* 'put')
Two Syllables	c. CV.CVC	(*tu.nux* 'head')
	d. C.CGVC	(*q.sya'* 'water')
Three Syllables	e. C.CV.CVC	(*h.gi.nik* 'waist')
	f. CVC.CV.CVC	(*lin.lu.ngan* 'mind; thought')
Four Syllables	g. C.C.C.CVC	(*s.t.n.xan* 'privy')
	h. CVC.C.CV.GVC	(*qin.p.zi.wan* 'former')

In (2.1), "." is used to mark the syllable boundary and C, G, and V are abbreviations for consonant, glide, and vowel, respectively.

Stress falls on the last syllable (Li 1980:356; Rau 1992:26). Note that if words undergo suffixation, stress remains falling on the last syllable of the derived words.

2.3 Morphosyntax in Squliq Atayal

In this section, I will provide a description of the morphosyntax of the language. As mentioned previously, there are six issues to be addressed, each stemming from three distinct levels, as shown in (2.2):

(2.2) Seven issues regarding the information in a verbal clause
   a. Word class
   b. Constituent order of a basic clause
   c. The case-marking system
   d. The pronominal system
   e. Voice types and TAM
   f. Verb formation processes
   g. Clause types

With regard to word class and constituent order of a basic clause, I will show below that a verbal predicate and its argument(s) are the two central components of the clause, and each entails important syntactic functions. Any discussion of the last five issues in (2.2) revolves around a basic understanding of the nature of word class and constituent order.

The case-marking system and the pronominal system are associated with arguments. Arguments often occur with a case marker, and the case-marking system needs to be examined for its important role in the grammatical structure of the language. Case markers have three types: *qu'*, *na'/ni'/nqu'*, and *sa/squ'*; *qu'* is used for marking the clause subject; *na'/ni'/nqu'* are used for marking an agentive argument and are further divided into Gen1 and Gen2, with Gen2 denoting the adjunct argument; *sa/squ'* are used to introduced a non-agentive argument and are further divided into Loc1 and Loc2, with Loc2 denoting the intrinsic undergoer of a semantically transitive verb. Like the case-marking system, the pronominal system is also concerned with the syntax of
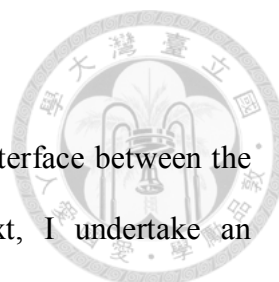
arguments.

For a verbal predicate, I provide a careful discussion on the interface between the four-way voice system and the tense/aspect/mood system. Next, I undertake an examination on verb formation processes for showing that the semantic components entailed by the base of a derived verb can be realized as clausal adjunct arguments, which though associated with the schematization of the event a verb encodes, they cannot take the role of the default undergoer argument on the determination of which a Squliq Atayal verb's class at the level of morphosyntax. Last, I identify verbal clause patterns for the purpose of showing a correlation between a verb and the morphosyntactic behavior of its arguments.

From a more integrated perspective, this "sketch" of the morphosyntax of the language can be taken as the presage of my claim for the thesis: the voice-marking system is lexically-specific.

2.3.1 Word classes

Let's first consider the following excerpt comprised of eight sequential utterances:

(2.3)
a. (Sinica Archive: 01-001-a)

    a   maki'   qutux   mit ga'.

    FIL   exist.AV one   ass[5] FP

    'There was an ass.'

b. (Sinica Archive: 01-001-b)

    mit qani'   ga', m-qilang balay.

    ass this   TOP AV-lazy true

    'As for the ass, it was quite lazy.'

---

[5] The exact meaning of *mit* is 'goat'; however, the storyteller provides the meaning 'ass' in the story he made.

c. (Sinica Archive: 01-001-c)
   "mit qilang"   so-n=naha'.
   ass lazy   say.thus-PV=3PL.GEN
   'People said, "The ass is lazy."'

d. (Sinica Archive: 01-002-a)
   swa'=naha'   so-n   mit qilang   ga'?
   why=3PL.GEN   say.thus-PV   ass lazy   FP
   'Why did people say that the ass was lazy?'

e. (Sinica Archive: 01-002-b)
   kryax   sasan   ga', a   ras-un   nqu' q<m><n>ayat
   everyday   morning TOP FIL take-PV   GEN <ACTRNMZ><PST>raise
   hya'.
   3SG.NEU
   'Every morning, the one who reared it brought it (to carry the goods).'

f. (Sinica Archive: 01-002-c)
   m-usa'   h<m>akut   squ'   bwax.
   AV-go   <AV>carry   LOC   husked.rice
   '(It) went to carry rice.'

g. (Sinica Archive: 01-002-d)
   h<m>akut   squ'   cimu'.
   <AV>carry   LOC   salt
   '(It) went to carry salt.'

h. (Sinica Archive: 01-002-d)
   h<m>akut   ana'   nanu'   ga', baq   balay
   <AV>carry   no.matter   what   TOP MOD   true
   m<k>kusa'   qu'   m-qilang   na' mit qani'.
   AV<RED>attitudinize   NOM   ACTRNMZ-lazy   LIG ass this
   '(However,) no matter what the goods were, the lazy ass was used to
   attitudinizing.'

In (2.3), it can be seen that each utterance is comprised of several lexical items and grammatical markers. Most lexical items can be assigned a separate lexical category by some criteria. The first criterion is, these lexical items can be described in terms of *part of speech*, a traditional grammatical class of lexical items. Table 2.3 shows the result of the assignment of lexical items to a part of speech:

Table 2.3: Assignment of lexical items to a part of speech

Part of speech	Examples
Adverbs	*balay, ana'*
Case marker	*nqu', squ'*
Discourse marker	*a* (filler)
Noun	*mit, kryax, sasan, q<m><n>ayat, bwax, cimu', m-qilang* (in *m-qilang na' mit*)
Particle	*ga'* (final particle), *ga'* (topic marker), *na'* (ligature in *m-qilang* (in *m-qilang na' mit*))
Possessives	*=naha'*
Pronoun	*swa', hya', nanu', qani'*
Verb	*maki', mqilang, qilang, ras-un, m-usa', h<m>akut, baq, m<k>kusa'*

Other parts of speech not occurring in the excerpt, but in other natural Atayal discourse are conjunctives (i.e., *ru* 'and'), interjectives (e.g., *talagay* used in a situation when people highly praise or are surprised at something or *ay* used when people sigh with emotion), ideophones (e.g., the sound of beast barking *kyaw* in *cyux iy kyaw kyaw para' qasa' lga'* 'The Formosan barking deer was barking' or *is*, which is used in a situation where people are disgusted at something), and so on.

In general, parts of speech are further divided into open and closed class. The *open-vs.-closed distinction* is the second criterion. The open parts-of-speech classes may be the classes of nouns, verbs, adjectives, and adverbs, as in English. However, as
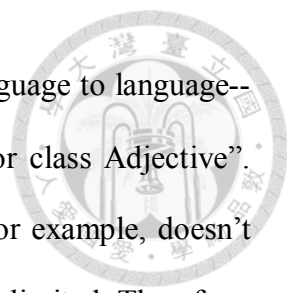
remarked by Dixon (1982:12), "major parts of speech vary from language to language--all languages appear to have Noun and Verb but some lack a major class Adjective". Dixon's point applies to the case in Atayal. The class of adverbs, for example, doesn't belong to the open class in Atayal, since its membership is relatively limited. Therefore, Atayal has only two open word classes, Noun and Verb.

Third, lexical items can also be defined in terms of *the level of predication* or *clauses.* From the perspective of *Functional Grammar (*Dik 1978; 1983; 1984:89; 1989), lexical items in (2.3) can be realized as components of the predication. The components of the predication are represented in the following diagram (Dik 1984:89):
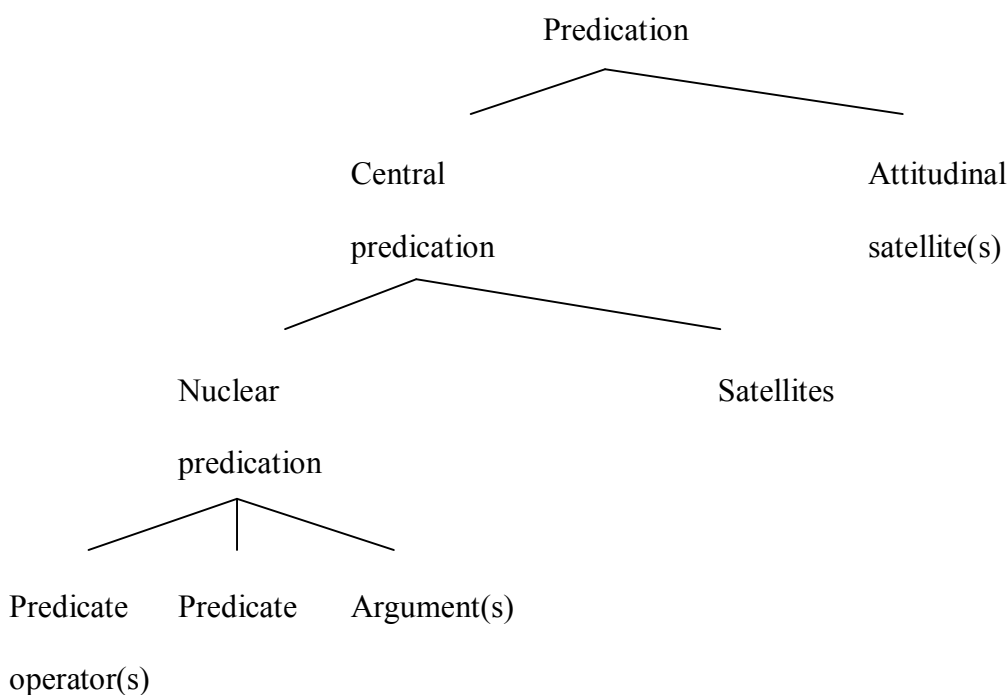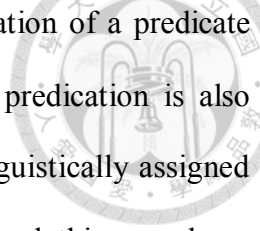
Fig. 2.1: Components at a layered structure of a predication

Among the components, the predicate is central to the predication of the clause structure; moreover, as in many languages of the world, it is usually the verb that functions as the predicate; furthermore, since the predicate usually must co-occur with argument(s), a

13

complete predication is then formed. Thus, the idea that a combination of a predicate and a meaningful argument structure construction forms a single predication is also advocated by Goldberg (2010:39). The term 'argument' is cross-linguistically assigned to the class of words which includes names of persons, places, and things and are designed to refer to objects. It is a combination of a verbal predicate and at least one argument that constitutes a simple clause.

Predicate operators and satellites do not determine the semantic-role or argument structure of a verbal predicate. Predicate operators specify tense, voice, mood, and the positive/negative polarity, and they are placed before the predicate in Atayal. Satellites are used for providing such information, as time, location, cause, reason, manner, etc., but note that, in the case of Atayal, they may occupy an argument position.

At the level of predication, then, the result of the assigning lexical categories to lexical items in (2.3) is as shown in Table 2.4:
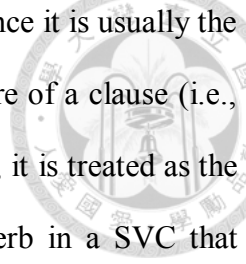
Table 2.4: Category assignment of lexical items in clause (2.3) in Squliq Atayal

	Attitudinal satellite	Satellite	Predicate	Attitudinal satellite	(Predicate)	Argument	Attitudinal satellite
(2.3a)			*maki'*			*qutux mit,*	*ga'*
(2.3b)	*mit qani' ga'*		*mqilang*			(Zero)	*balay*
(2.3c)			*so-n*			*=naha',* "*mit qilang*" (as a complement)	-
(2.3d)	-	-	*swa'*			*so-n=naha'* "*mit qilang*" (as a complement)	*ga'*
*	-	-	*so-n*			*=naha',* "*mit qilang*" (as a complement)	-
(2.3e)		*kryax sasan ga'*	*ras-un*			*q<m><n>ayat, hya'*	-
(2.3f)			*m-usa'*		*h<m>akut*	*bwax*	
(2.3g)			*h<m>akut*			*cimu'*	
(2.3h)	*hmakut ana' nanu' ga'*		*baq*	*balay*	*m<k>kusa'*	*m-qilang na' mit qani'*	
**			*hmakut*			*ana' nanu'*	*ga'*

* is the complement of *swa'* in (2.3d). Since it is a structurally complete enough to be a clause, its constituents can be further analyzed in this way.

**, same to the case *. The clause *hmakut ana' nanu' ga'* stems from (2.3h) and is its topic. It is a complete clause, so that its constituents can be categorized into their respective component roles in a predication.

A serial verb construction (SVC) occurs in (2.3e) and (2.3h). But since it is usually the first verb used to determine the important morphosyntactic structure of a clause (i.e., the voice type of a clause and the host to which a clitic is attached), it is treated as the main verb of a SVC construction, but it is the second or last verb in a SVC that specifies the argument structure of the SVC construction. This can explain why in (2.3h), an attitudinal satellite *balay* immediately follows the first verb *baq* to modify the verb, but not the second verb *m<k>kusa'*; however, the attitudinal satellite doesn't influence the morphosyntactic structure of a clause.

The ordering of other components is not fixed. Attitudinal satellite can be positioned either clause-initially or clause-finally, like satellites. (2.3e) illustrates a satellite denoting time information about the narrated event placed in the clause's initial position.

A more precise description can be obtained from the definition of lexical items in terms of *the level of predication* or *clauses* is on the ordering of components of an Atayal predication can be stated in this way: **a predicate is more closely ordered next to its argument(s), while distribution of the others is relatively flexible.** Following the "subject predicate analysis" in which a clause is divided into two parts (Palmer 1994), the simplest clause consists of a verbal predicate and subject. Atayal is a language with a **predicate-subject** order.

A verbal predicate in Atayal can also take more than one argument. As in (2.3c), one (i.e., the content of a saying event *mit qilang*) is the subject, while the other, which is assigned the semantic role of Actor, is excluded from being the object, either. But what is its grammatical role? Actually, in some cases, there are more than one argument occurring in between a verbal predicate and the subject. The same question may also be raised with respect to the argument: what is the grammatical role of the second non-subject argument.

As stated, how a verb is classified in Atayal is determined by the kind of nominal arguments the verb has and how they are linearized in surface structure. In the following discussions, I will investigate the ordering of arguments and other issues regarding the structure of nominal arguments, i.e., the pronominal and the case marking systems, and the morphosyntax of the verbal predicate. All these issues are associated with the goal of this dissertation, which is to classify verbs in Atayal.

2.3.2 Constituent order of a basic clause

As mentioned, the basic word order of Atayal can be analyzed as a predicate-subject structure, as exemplified below:

(2.4) Equational sentence (gaga' na' Atayal: 104-106)

Nominal predicate   Subject

piaojie=maku'   qu' sayun qasa'

elder.daughter.of.one's.uncle.or.aunt=1SG.GEN NOM PN that

'That (person), *Sayun*, is the elder daughter of (my) aunt.'

(2.5) Existential sentence (repeated from (2.3a) (Sinica Archive: 01-001-a))

Verbal predicate Subject

a maki'   qutux mit ga'.

FIL exist.AV one   ass FP

'There was an ass.'

(2.6) AV (Sinica Archive: 01-009-b)

Verbal predicate   Subject

m-qas balay qu' mit qani' ma'.

AV-happy true NOM ass this QUOT

'This ass was quite happy.'

(2.7) EIC

Verbal predicate

nanu' a,   obeh   [tehuk]   balay   squ' a,   tanux=myan
what FIL   ASP   arrive   true   LOC FIL   courtyard=1PE.GEN

Subject

la'   qu'   a,   [qsya'   qasa']   uzi' lga'.
FP   NOM   FIL   water   that   also FP:FP
'Water (i.e., the flood) nearly reached our courtyard.'
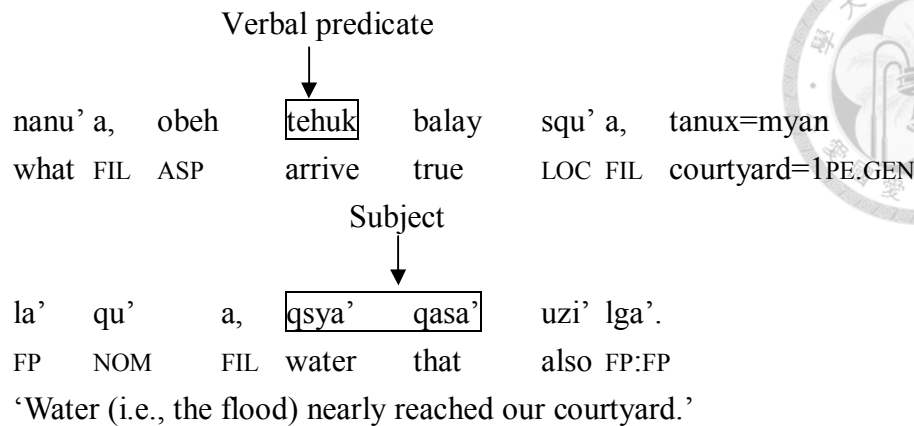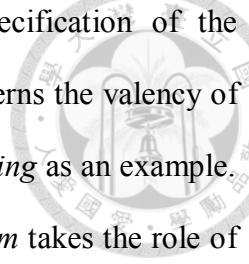
(2.8) UV (Sinica Archive: 10-002-a)

Verbal predicate   Subject

...[hwah-un=myan   a   m-squq] [ngasal]; ...
let.drop-PV=1PE.GEN   FIL   AV-loose house
'…we (had no choice but to) destroy our houses and took them apart; ...'
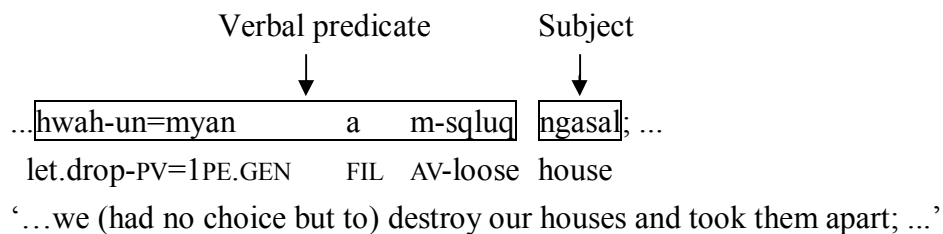
As can be easily observed from (2.4) to (2.8), predicate and subject form two conspicuous "chunks" or, in a traditional analysis, two major constituents of a basic Atayal sentence.

Subject is commonly realized as the perspective, or the point of view for the utterance to be interpreted (Siewierska 1988:108); as a result, once a participant or an entity is introduced into a discourse (*usu.* through an existential sentence as (2.5)), its referent turns into readily accessible information to the hearer in sequent discourse. The participant or entity is henceforth the subject in the discourse. As mentioned, the clausal final position of a basic sentence in Squliq Atayal is exclusively reserved for subject. As a result, in most utterances, from the perspective of *Functional Grammar* (Dik 1978, 1984:89, 1989), the left to the subject of a sentence is designed for the presentation of the predicate, along with other obligatory constituents other than the subject, and optionally predicate operators and satellites (see Section 2.3.1).

18

Other obligatory constituents are tied to the semantic specification of the predicate. There are two types of semantic specification. One concerns the valency of a verbal predicate. Take the English sentence *Tom gave his wife a ring* as an example. Since the sentence specifies an active mood, the actor argument *Tom* takes the role of subject, while the recipient *his wife* and the theme *a ring* then are considered obligatory constituents of the predicate *gave*. Another example can be seen from the sentence *Many species exist in the island*. In this sentence, the location verb *exist* requires a location nominal phrase to anchor the existence of a theme subject. The arguments *his wife/a ring* in *Tom gave his wife a ring* and *the island* in *Many species exist in the island* are subcategorized for by their respective verbal predicate. This is the first type of semantic specification. The second type involves the notion of entailment. For example, *hammer* and *enshrine* respectively entail an instrument and a location argument whose specification depends on the context. In terms of Dik's *Functional Grammar (*1978, 1984, 1989), entailed arguments like *a hammer* and *a holy place* are categorized as satellites.

Going back to the case of Squliq Atayal. In a plain UV clause, the non-actor argument is taken as the clausal subject, and then placed at the right side of a clause, as in (2.4). The remaining question is to solve the relative ordering of satellites. According to the literature (Pinkster 1972; Enkvist 1976; Bybee 1985a, 1985b; Siewierska 1988, 1993; etc.), the degree of their semantic bondness to the predicate is an important factor for the relative order of constituents. Items closely tied to the semantics specification of the verb tend to occur closer to it than those lacking such ties. In addition to the arguments that the valency of a verb sanctions, satellites are also relevant, the notion of entailment straightforwardly evidences this. The instrument (e.g., *tekan kwayux* 'vine chair' in (2.9a)) and the location argument (e.g., *m-nkungm* '(a) dark place' in (2.9b), and *qsya'* 'water' in (2.9c)) are satellites:

(2.9)

a. (gaga' na' Atayal: 475-477)

s-phangal=naha'		**na'**	**tekan**	**kwayux**	qu'		toki.
CV-shoulder=3PL.GEN		GEN	chair	vine	NOM		leader

'They carried (the) leader on a vine chair.'

b. (Sinica Archive: 13-003-b)

m-usa'…	'sa-n=naha'	matas	squ'	**m-nkungm**.
AV-go	go-LV=3PL.GEN	tattoo.AV	LOC	STATNMZ:AV-dim

'(They) went… They went to tattoo in a dark place.'

c. (Sinica Archive: 05-016-b)

hng'-un=naha'		squ' a	**qsya'**	qu'	abaw	miquy
dip.in.water-PV=3PL.GEN		LOC FIL	water	NOM	leaf	reed

qasa'	ga'.
that	FP

'They dipped that reed into water.'

d. (gaga' na' Atayal: 1049-1057)

nanu'	yasa'	maha'	a,	a	giwa-n	nqu',
what	that.way	QUOT	FIL	FIL	similar-LV	GEN

muling=sami'		maha',	t<n>atuk=myan		na'
throw.away.AV=1PE.NOM		QUOT	<PST.OBJNMZ>nod=1PE.GEN		GEN

tunux	squ'	**simu'**	ka	k<in>kes-an	raral.
head	LOC	2PL.NEU	LIG	RED<PST>old-LOCNMZ	in.the.past

'Therefore, as we hold Ancestral Spirit Festival, it seems as if we have to nod gratitude to you, i.e., the ancestors.'

Instrument usually refers to a tool held on an actor's hands for him or her to exert force (on an undergoer) to achieve his/her goal in an event. As can be seen in (2.9a), the instrument *tekan kwayux* 'vine chair' is placed closer to the predicate *s-phangal* 'shoulder' than the subject; this implies that an instrument is a ramification of the actor. Location stands for a spatial setting where an actor carries out an action, and thus the location argument, like *qsya'* in (2.9c), can also be placed closer to the actor.

Moreover, in Squliq Atayal, an instrument nominal tends to occur closer to the actor constituent than a location nominal since instrument is a ramification of the actor and the two are similar categories exhibiting a greater degree of fusion or combination (e.g., *tunux* 'head' vs. *simu'* 'you (pl.)' in (2.9d)). This is the cognitive/processing factor, one of four factors affecting word order identified by van Dijk (1977).[6] In short, **an instrument constituent usually precedes a location one in a clause**. As a result, the constituents in a basic Squliq Atayal UV clause can be aligned in the following order:

(2.10) Verbal predicate=Actor > Instrument> Location > Undergoer Subject

Moreover, either instrument or location can be subsumed under the notion of manner. Since these categories are entailed by the semantics of the verbal predicate and their surface realizations as argument nominals can also be omitted without causing ungrammaticality. Either the instrument or the location NP in (2.9) **can be taken as an adjunct in a clause.** Their adjunct role means that they are not the default undergoer of a verb and thus cannot be used as an index to verb types in the language. I make an extended discussion on this point in Section 2.3.6.

2.3.3 The Squliq Atayal case-marking system

The purpose of this section is to introduce three hierarchically-structured parameters, the various functions of case-marker-distinction, to re-model the case system in Squliq Atayal, and to present the remodeled one as a transparent access to our holistic understanding on the voice construction types in the language, which is

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[6] van Dijk (1977) identifies four factors affecting word order. They are natural ordering, cognitive/processing ordering, thematic ordering, and pragmatic ordering.

intimately associated with verb classification, which is the primary goal of the present study.

Parameter one is *the grammatical-vs.-semantic parameter*, which says that case markers can be firstly distinguished into grammatical case markers and semantically-based case markers. The grammatical case marker is *qu'*, the subject marker; other case markers like *sa/squ'* and *na'/ni'/nqu'* belong to the semantically-based case markers, since they encode thematic role information.

Parameter two refers to *the agentive-vs.-nonagentive parameter*, which is designed for drawing a boundary between semantically based case markers. It will be demonstrated below that *na'* (and its allomorphs, *ni'* and *nqu'*) is used to introduce a noun phrase expressing the concept of agency, while others like *sa*, *squ'*, and *te* belong to a *nonagentive* class.

Parameter three is concerned with whether a noun (phrase) specified by a non-nominative (or oblique) case marker is semantically required by a verb. It is *the core-vs.-noncore parameter*. That is, either the *agentive* class or *nonagentive* class can be subdivided into the core and the noncore. It is the lowest parameter in the hierarchy but is directly linked to verb classification. This implies that E plays a significant morphosyntactic role in the language. The remodeled case system is shown below:

```
Parameter 1:      Grammatical              Semantic
                       |                  /        \
Parameter 2:                        Agentive        Non-agentive
                                    /      \          /       \
Parameter 3:                     Core   Non-core   Core   Non-core
                       |          |        |         |        |
Case marker:          qu'      ni'/nqu'   na'      sa/squ'  sa/squ'/te
                              (Gen1)    (Gen2)    (Loc2)   (Loc1)
Grammatical role:  S/O          A       A'/Adjunct   E     Adjunct
```
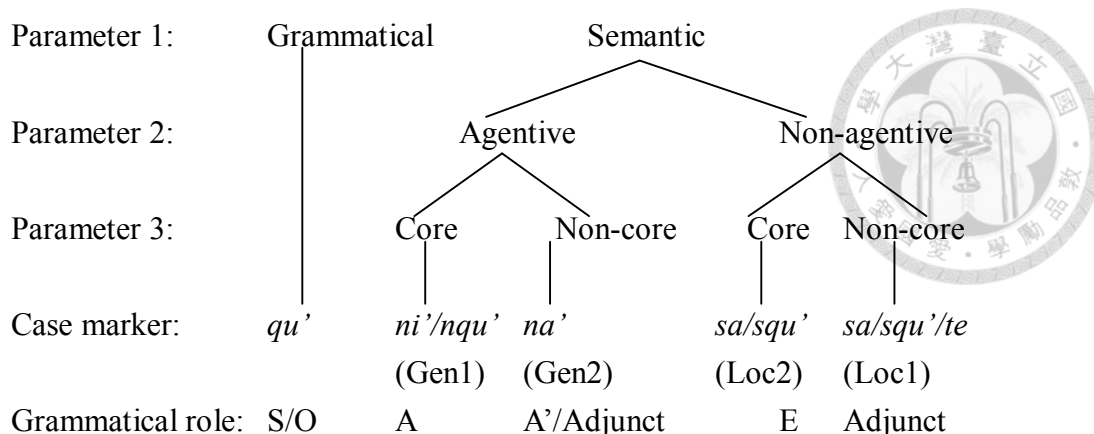
Fig. 2.2: A remodeled, hierarchy-based case marking system in Squliq Atayal

2.3.3.1 An overview of the previous studies on the case-marking system in Squliq Atayal

Case markers in Squliq Atayal include *qu'*, *na'* /*ni'* /*nqu'*, *sa*/*squ'*, *te*, and *ki'*, though they are often absent from daily communications. The functions of the first three (sets) are displayed in Table 2.5:

Table 2.5: Three main sets of case markers in Squliq Atayal (based on Rau (1992), Rau and Grime (1994), L. Huang (1993, 1995), Li (1994), and Liao (2004))

Set	I	II	III
Case marker	*qu'*	*na'* (or *ni'* or *nqu'*)	*sa* (or *squ'*)
Case type	Nom	Gen	(1) Obl (2) Loc

In the following sections, I will review the functions of all the three sets of case markers and, propose a new way to understand their functions with respect to the grammar of Squliq Atayal.

2.3.3.2 *qu'* as a nominative marker

qu' can be used to introduce a content in an equational sentence, as in (2.11):

(2.11) (gaga' na' Atayal: 454)

sswe'	qu'	kun	ma'.
younger.sibling	NOM	1SG.NEU	QUOT

'I am (her) younger brother.'

qu' can also be used to encode a theme in stative ((2.12) and (2.13)), locative ((2.14)),

or existential sentence ((2.15)):

(2.12) (gaga' na' Atayal: 229-231)

hilaw	balay	uzi'	qu'	pihaw	na'uy	qasa'.
active(.AV)	true	also	NOM	PN	PN	that

'Pihaw Nahuy was very active.'

(2.13) (Sinica Archive: 01-003-b)

twahiq	qu'	phkny-an=n(a)ha'.
far(.AV)	NOM	walk-LOCNMZ=3PL.GEN

'They walked so far.' (Lit., 'Their walk was long.')

(2.14) (Sinica Archive: 01-014-f)

maki'	gleng	qu'	q<n>ayat	hya'	qasa'.
exist.AV	front	NOM	keep<PST.OBJNMZ>keep	3SG.NEU	that

'The keeper (of the ass) walked in front.'

(2.15) (Sinica Archive: 01-008-g)

cyux	kya	qu'	tiyu'	yubing=nya'	ma'.
EXT.REM	there	NOM	six	bag=3SG.GEN	QUOT

'Six packs (of rice) were over there.'

qu' can also be used to introduce an agent in an activity (2.16) or an experiencer in an

emotional state (2.17) or a theme in an event ((2.18) and (2.19)), where the predicate

is an AV verb.

24

(2.16) (Sinica Archive: 01-013-a)

k<m>al	qu'	q<n>ayat	hya'	qani'	ma',
<AV>speak	NOM	<PST.OBJNMZ>rear	3SG.NEU	this	QUOT
"mit,"	so-n=nya'	ma',	"laxi'	qila'	ay."
ass	say-PV=3SG.GEN	QUOT	NEG	lazy	FP

'The keeper said, "Ass!" He said, "Don't be lazy!"'

(2.17) (Sinica Archive: 01-008-c)

m-qas	balay	qu'	mit	qani'	ma'.
AV-happy	true	NOM	ass	this	QUOT

'The ass was so glad.'

(2.18) (Sinica Archive: 01-025-g)

m<s>qsya'	qu'	cimu'	la	ma'.
AV<become>water	nom	salt	FP	QUOT

'Salt melted in water.'

(2.19) (gaga' na' Atayal: 435-436)

wal	m-qluy	la',	qu'	sayun	qasa'.
ASP	AV-flush.away	FP	NOM	PN	that

'That (person), Sayun, was flushed away.'

qu' can also introduce a patient in a PV construction, a goal in a LV construction or a transported theme in a CV construction, as in (2.20), (2.21), and (2.22), respectively:

(2.20) (Sinica Archive: 01-016-c)

hluzy-un=nya'	qu'	mit=nya'.
drag-PV=3SG.GEN	NOM	ass=3SG.GEN

'He dragged his ass.'

(2.21) (Sinica Archive: 01-015-d)

kta-n	qu'	hongu'	qani'mga',	"ay",	(l<)m>nglung
see-LV	NOM	bridge	this QUOT:TOP	EXCL	<AV>think

qu'	mit	qani'	lma'.
NOM	ass	this	FP:QUOT

'After it saw the bridge, the ass sighed (with disappointment) and thought.'
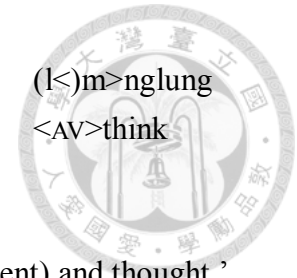
(2.22) (Sinica Archive: 01-014-d)

s-panga'=nya'	kwara'	qu'	spat	na'	yubing
CV-carry.on.back=3SG.GEN	all	NOM	eight	GEN	bag

ka	bwax	qani'	ma'.
LIG	husked.rice	this	QUOT

'(…so that) it carried all the eight packs of rice.'

It is easy to observe that the *qu'*-marked noun phrases in the sentences above cover a wide variety of thematic roles (e.g., agent ((2.16)), experiencer ((2.17)), patient ((2.20)), and theme ((2.12)~(2.15), (2.18), (2.19), (2.22)) etc.); besides, the predicates occurring in these sentences may be nominal(e.g., nominal NP (2.11)), adjectival (2.12), or in different voice constructions ((2.19)~(2.22)). In short, in the [X qu' Y] construction, *qu'* is a nominative case marker and X is the main predicate and the construction is used to make a statement about Y in terms of X.

Furthermore, nominative stands in sharp contrast to other cases. The nominative case is used in specifying an entity the speaker talks about, is usually unmarked, and often does not involve relation(s) with other entities as non-nominative cases, i.e., oblique cases, do. In contrast, the locative case is used to specify an entity occupying some space with respect to the event encoded by a predicate; genitive encodes the adnominal relation between a possessor and a possessee. As in the case in Squliq Atayal, the expression of a noun phrase introduced by non-nominative case markers is adjunct to the predicate X in the [X *qu'* Y] construction, since they are implied by the

semantics of the predicate (e.g., *tekan kwayux* 'vine chair' implied by the predicate *s-phangal* 'shoulder' in (2.9a) and *qsya'* 'water' by the predicate *hng'-un* 'dip in water' in (2.9c) (see Section 2.3.2).
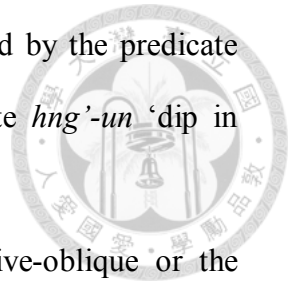
In light of the observations above, I propose the nominative-oblique or the grammatical-semantic distinction as the first parameter for the realization of the case system in Squliq Atayal.

Though *qu'* is commonly analyzed as a nominative case marker, it has also been analyzed as a relator noun (Starosta 1985:112-8, 1999:379-380) or an auxiliary noun (Liao 2004). According to Blake (2001:15-7), relator nouns refer to a specialized subclass of nouns that behave like adpositions in relating a predicate to a noun phrase, as *top* in the sentence *He is standing on top of the cupboard*, analyzed as a relator noun showing the relationship of *cupboard* to *stand*. In light of this, it is clear that unlike the English word top, *qu'* has no any lexical content, esp. regarding the notion of space; henceforth, the "relator noun" analysis of *qu'* can be safely rejected. Liao also reject the relator noun analysis for similar reasons and then proposes *qu'* as an auxiliary noun (Liao 2004).

Examples she uses to support the "auxiliary noun" analysis are as follows:

(2.23) (Liao (2004:314 (79)); glosses and transcriptions original)

kya	qu'	baq	powah	squ'	hongu'	qasa'	hiya'
if	QU'	can	pass/cross/over	LCV	bridge	that	3S(CORE)

ga',	mlikuy	balay	son=nya'.
TP.LK	man	true/real	call/become=GEN.3S

'If one can cross over that bridge, he is a real man.'

(2.24) (Liao 2004:315 (81); glosses and transcriptions original)

ngarux	qu'	nyux=nha'	bay	kngun	uzi.
bear	QU'	PROX.IMM=GEN.3P	very	fear	also

'They were very much afraid of bears.'
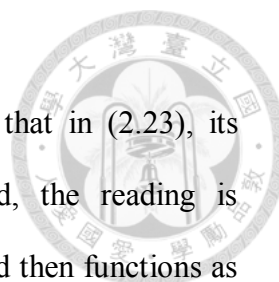
If one takes a closer look at (2.23) and (2.24), it can be seen that in (2.23), its conditional reading cannot derive from the word *kya*; instead, the reading is context-induced, since a more accurate gloss for *kya* is 'there is' and then functions as a verbal predicate of a headless relative clause; in this sense, (2.23) should be an existential sentence, where *baq powah squ' hongu' qasa' hiya'* is a verbal phrase. Similarly, (2.24) should be analyzed as an equational sentence, in which *ngarux* is a nominal predicate, while the predicate phrase *nyux=nha' bay kngun uzi* is a headless relative clause (cf. Kroeger 1998:2, 11). In short, (2.23) and (2.24) can be simplified as the [X *qu'* Y] construction, and *qu'* in (2.23) and (2.24) remains a nominative case marker.

In some cases, the *qu'* marker is integrated with other lexemes into a formulaic expression and can't be a nominative, as in *nanu' yasa' qu'* in (2.25):

(2.25) (Sinica Archive: 02-006-c)

a	ini'=naha'	hyag-i	ru;	**nanu'**	**yasa'**	**qu',** yaqih
FIL	NEG=3PL.GEN	chase-PV.NEG	and	what	that.way	QU' bad(.AV)

qsiliq=naha'	maha'.
mood=3PL.GEN	QUOT

'They couldn't chase them back; therefore, they felt bad.'

In (2.25), *nanu' yasa' qu'* functions as a conjunctor, meaning 'therefore; as a result'; in this expression, *qu'* has lost its status as a case marker. The formulaic expression has the form [X *qu'*] construction and Y is absent, and the *qu'* is not a case marker, in which X refers to *nanu' yasa'*. Other "case markers" are also found to occur in formulaic expressions. Consider (2.26) and (2.27):

(2.26) (Sinica Archive: 03-011-a)

maha'   ni'   m-tngtin so-n=naha'   uzi' ga', yaqih   uzi'.
QUOT   NI'   AV-loiter say-PV=3PL.GEN   also TOP bad(.AV) also
'People said, if (an omen bird) loitered (on the road), it would mean (a) bad (omen).'
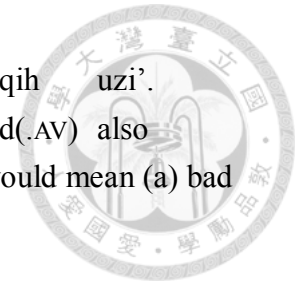
(2.27) (Sinica Archive: 06-001-a)

a   trang   nqu'   p<n>ung-an   ka   ke'
FIL   just.as NQU'   <PST>hear-LOCNMZ   LIG word
(b)nkis raral   ka   so-n=nya'   ma'   o
old.man in.the.past LIG   say.thus-PV=3SG.GEN QUOT   FIL
hongu' na' utux   hya'   ga'.
bridge GEN ancestral.spirit 3SG.NEU FP
'It happened that I have heard about the rainbow through the elders' words.'

In (2.26), *maha' ni'* means 'if' and like *nanu' yasa' qu'*, is a conjunctor. For the *ni'* here, a case-marker analysis of the expression does not work. Similarly, in (2.27), *trang nqu'* means 'just as', in which *nqu'* is not a case marker.

In summary, in most cases, *qu'* is a nominative case marker. It functions to name the entity that is talked about in a discourse. It can encode a wide range of thematic roles, and the types of predicates it co-occurs with are also diverse. Other case markers, subsumed under the oblique in the present study, are more semantically based, and the thematic roles they encode and distribution are rather more restricted.

2.3.3.3 *na'/ni'/nqu'* as genitive markers

According to the traditional analysis (Jakobson 1936/1971; de Groot 1956; Langacker 1977; Blake 2001; among others), all of the case markers, except for the nominative, can be subsumed under oblique. *Na'* and its two variants *ni'* and *nqu'* and *squ'/sa* fall under that category. *Na'/ni'/nqu'* as genitive markers encode the relation of possession, while *sa/squ'* encode the notion of affectedness (i.e., someone

29

is affected by an event or an action) or location (i.e., someone occupies some location in an event). I first consider the genitive case markers.

As mentioned, the genitive case markers *na'*, *nqu'* and *ni'* encode the concept of possession. Sentences in (2.28) are illustrations.
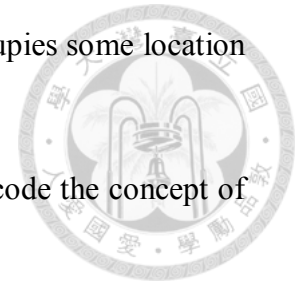
(2.28) *na'* specifying a possessive relation

a. (Sinica Archive: 01-010-d)

wal	si'	txal	m-(t)'yuw	kya	qu'	**kakay**
ASP	just	once	AV-change	there	NOM	foot

na'	**mit**	qani'	maha'.
GEN	ass	this	QUOT

'The legs of the ass then got transformed once.'

b. (Sinica Archive: 04-004-e)

maha'	qani'	qu'	**gaga'**	**nqu'**	**yasukilisto**	ma'.
say(.AV)	this	NOM	norm	GEN	Jesus.Christ	QUOT

'The norms of Jesus Christ got set up in this way.'

c. (gaga' na' Atayal: 503-507)

nanu',	pubu'=sami	squ' ta-	a,	**blihun**	**na'**,	a,
what	shoot=1PE.NOM	LOC TA	FIL	door	GEN	FIL

pqwas-an	qani'	ma'.
study-LOCNMZ	this	QUOT

'So, let's take a picture together at the campus' door.'

d. (gaga' na' Atayal: 36-37)

mlikuy	qa'	ga',	**sswe'**	**na'**	**sayun**.
male	DEM	TOP	younger.sibling	GEN	PN

'The man is Sayun's younger brother.'

e. (Sinica Archive: 01-002-e)

h<m>akut   ana'   nanu'   ga', baq balay
<AV>carry   no.matter   what   TOP can true
m<k>kusa'   qu'   **m-qilang   na' mit** qani'.
AV<RED>attitudinize   NOM   ACTRNMZ-lazy GEN ass this
'(However,) no matter what the goods were, the lazy ass was used to attitudinizing.'
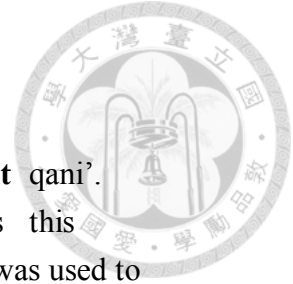
In all the examples in (2.28), the genitive marker *na'* occurs in the [X *na'* Y] possessive construction. Possession may refer to an inalienable relationship, as in (2.28a). The possessor can be a creator, as in (2.28) where Jesus Christ formulates norms; it can also denote an alienable relationship, as in (2.28c), a kinship, as in (2.28d), or an abstract relationship such as an attribute owned by someone, as in (2.28e).

It is commonly known that the possessor in a possessive construction often functions as the causal agent or instrument in transitive UV clauses. This means that there are two uses of *na'/ni'/nqu'*: (i) the noun phrase introduced by *na'/ni'/nqu'* may refer to an actor in an UV construction (Y), and (ii) *na'/ni'/nqu'* may be used to introduce an instrument phrase. The two uses are illustrated in (2.29) and (2.30) respectively:

(2.29)
a. (Sinica Archive: 20-001-b)

baha'   m-swa' qu'   pzit   qani'   hya'   ga',
how.come   AV-why NOM   sparrow   this   3SG.NEU TOP
mma'   maki'   qu'   pzit   qani'   ga', n-aras
how.come   exist.AV NOM   sparrow   this   TOP PST-bring
nqu'   a   bnkis=ta'   raral.
GEN   FIL   old.man=1PI.GEN   in.the.past
'As for the occurrence of the sparrow, it was brought by our ancestors.'

b.   (Sinica Archive: 02-009-g)

"wayal   cqiry-an **na'** a   mknazi'   qu'   kneril=mamu"

ASP   tease-LV GEN FIL Mknazi   NOM   female=2PL.GEN

maha'.

QUOT
'The Mknazi people teased your women.'

c.   (Sinica Archive: 366-368)
cyux   'muk-an   **na'** k'man   kwara'   qu'   blihun   na'
ASP   cover-LV   GEN grass   all   NOM   door   GEN
pqwas-an.
study-LOCNMZ
'Grass covered the whole (front) door of the campus.'

(2.30)
a.   cyux   mhkani' **na'** hoku'   qu'   bnkis   qa.
ASP   walk.AV GEN stick   NOM   the.elder DEM
'The old man is walking with a stick.'

b. (gaga' na' Atayal: 475-477) (repeated from (2.9a))
s-phangal=naha'   na' tekan   kwayux   qu'   toki.
CV-shoulder=3PL.GEN   GEN chair   vine   NOM   leader
'They carried (the) leader on a vine chair.'

In (2.29a), *nqu'* is used to introduce a human actor (*bnkis=ta'* 'our elder'); likewise,

in (2.29b), *na'* is used to introduce a human actor (*mknazi'* "the Mknazi' people'). In

(2.29c), *na'* is used to encode an inanimate entity, i.e., *k'man* 'grass'; grass is

described as being endowed with some kind of agency, since it covers part of the

school ground. In old Atayal, there is a division of labor between *nqu'* or *ni'* and *na'*.

Nqu' or *ni'* is used to encode a human NP, and *na'* is for a nonhuman NP ((L. Huang

1995b:274; L. Huang et al 1998:32; Li 1995, 1997:374-348. However, the distinction

is gradually being lost among the younger speakers in modern Atayal.

In both (2.30a) and (2.30b), *na'* encodes an instrument function. (2.30a) and (2.30b) are identical in that the *na'*-marked NP functions as an instrument nominal, but differ from each other in the voice type of the main verb. Note that instrument is a secondary function of the genitive *na'*, since *na'* as a case marker of agent is its primary function. Agent or actor is a core argument and conveys important information in discourse, while instrument is peripheral. In other words, I would like to propose that the genitive marker in Squliq Atayal (or other languages which use a single marker to express both Actor and instrument) covers two subtypes: **Gen1** is used to encode an Actor argument, and **Gen2** an instrument NP. The genitive marker for possessor in (2.28) is regarded as **Gen1,** since possession and transitive action are based on the same conceptual schema in that the possessor in a possessive phrase is conceptually an actor that possesses some possession in a transitive clause.

2.3.3.4 *sa/squ'* as locative markers

Sa and *squ'* are commonly known to encode a location or the object of a semantically transitive verb. Examples are given below:

(2.31) *sa/squ'* used to introduce a location NP
a.   (Sinica Archive: 12-024-f)

aw	baq,	cyux	h\<m>ow	squ'	zik	ka
right	can	PROG.REM	\<AV>shout	LOC	bottom	LIG
bsyal	lmga'.					
tree.name	FP:QUOT:FP					

'(He) was shouting at the bottom of the Bsyal tree.'

b. (Sinica Archive: 13-003-b) (repeated from (2.9b))

m-usa'...	'sa-n=naha'	matas	squ'	m-nkungm.
AV-go	go-LV=3PL.GEN	tattoo.AV	LOC	STATNMZ:AV-dim

'They went to tattoo in a dark place.'

c. (Sinica Archive: 05-016-b (repeated from (2.9c))

hng'-un=naha'		squ'	a	qsya'	qu'	abaw	miquy
dip.in.water-PV=3PL.GEN		LOC	FIL	water	NOM	leaf	reed

qasa'	ga'.
that	FP

'They dipped that reed into water.'

In (2.31), there are two ways in which *sa* or *squ'* is used. First, *sa* NP or *squ'* NP in (2.31a) and (2.31b) is used to encoded a spatial relation in which an event occurs. In (2.31a), the NP *sa zik ka bsyal* 'at the bottom of the Bsyal tree' is where the shouting takes place. Likewise, in (2.31b), the location encoded by the NP *squ' m-nkungm* 'in a dark place' is where the tattooing activity takes place. Second, the use of *sa* or *squ'* NP encoding a location concept appears not only in an AV clause (e.g., (2.31a)) but also in a UV clause (e.g., (2.31b) and (2.31d)). The locative expression specified by a *sa* or *squ'* NP may be inferred from the semantics of a verb. For example, the concept 'water' is inferable from the verb *hng'-un* 'dip in water' in Atayal. As a result, the omission of the NP *squ' qsya'* is acceptable.

Actually, all *sa* or *squ'*-marked NPs in (2.31) are omittable, because they are an adjunct in their respective sentences. The *sa* or *squ'* NP in (2.31) is there merely to provide background information for the event. I will henceforth term *sa* or *squ'* Loc1 or Loc$_{Adj.}$, in which the subscript $_{Adj.}$ stands for Adjunct.

The *squ'* (or *sa*) NP also appears in an existential construction, in which the verbal predicate is the variant voice form of *kaki'* 'exist', including *maki'* 'exist', *ki'an* 'be somewhere', and *s-kaki'* 'be somewhere for some reason' etc. Due to its

semantics, *kaki'* 'exist', along with its variant voice forms, is a very straightforward expression for the concept of existence in Squliq Atayal. It is used to express a spatial relation between entities in an event. For example, in the sentence *There are frogs on a rock*, the spatial relation is *frogs* being on *a rock*. More precisely, it is a locative role like *a rock* anchoring the existence of a theme role like *frogs*. In this sense, both the theme and the location role (e.g., *a rock*) are obligatory to the *kaki'* domain in the language, regardless of whether the predicate is the AV form (i.e., *maki'*), or the LV form (*ki'-an*), or the CV form (*s-kaki'*). Consider the use of *maki'* in (2.32):

(2.32) *sa/squ'* NP is an argument subcategorized for by the existence predicate
    maki':
(Sinica Archive: 01-011-d)

payat	yubing	maki'	squ' turu'		na'	mit	qani'	lga',
four	bag	exist.AV	LOC back		GEN	ass	this	FP:TOP
ay,	maki'	cikay	s<n>ru'=nya'					l' ay.
EXCL	exist.AV	a.bit	<PST.OBJNMZ>support=3SG.GEN					FP:FP

'That is, there were four packs on the ass's back; the ass had some strength to carry (rice).'

(2.32) illustrates a *maki'* construction [(*qu'*) Theme *maki' squ' (*or *sa*) Location], which is interpreted as 'Some object (or theme) exists in some location'. The construction is usually used for introducing a theme entity into discourse, and can also be [*maki' squ'* (or *sa*) Location *qu'* Theme]. In (2.32), two thematic roles can be distinguished: one is theme and the other, location. The theme NP usually assumes the role of topic in subsequent discourse, while the location NP is used to anchor the existence of the theme or to specify where the theme is affected (e.g., *gleng* 'front' in (2.14)). In this example, the location phrase is introduced by *squ'* (or *sa*); for this reason, *squ'* (or *sa*) is seen as a locative case marker, but not an adjunct-like marker as in (2.32). I will henceforth use **Loc2** to the locative case marker required by a

predicate, as in (2.32).

The notion of location is inherent to the *kaki'* construction and its other voice variants, but it is the *ki'-an* construction that is used to highlight the concept of location, instead of other voice forms (e.g., *s-kaki'*), as illustrated in (2.33):
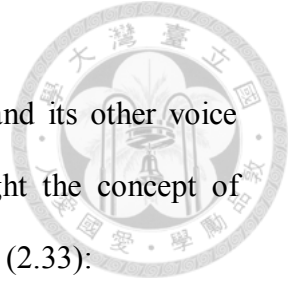
(2.33)

a. (gaga' na' Atayal: 365-368)

cyux	ungat	gako	uzi' la'.	kwara'	tanux
ASP	NEG	school	also FP	all	front.yard

lga',	cyux	ki'-an	k'man	kwara'	la'.
FP:TOP	ASP	exist-LV	grass	all	FP

'The campus is not there anymore. The whole front yard is covered with weed. (Lit., In the entire front yard, grass exists there).'

b. (Sinica Archive: 10-017-a & 10-017-b)

s-kaki'=myan	tuqiy	a	torak	ga',	mangay.	a
CV-exist=1PE.GEN	road	FIL	road	TOP	observe.AV	FIL

so-n	qasa'	ga',	s<m>bu'	s<m>bu'	qa	qsya'.
say.thus-PV	that	TOP	<AV>deluge	<AV>deluge	this	water

'We had no choice but to stay on the road to watch everything because the flooding was everywhere.'

In (2.33a), it can be seen that the location NP *kwara' tanux* is the focus of the *–an* clause. On the other hand, in (2.33b), in the event encoded by s-*kaki''* clause, the focus shifts to the cause specified in a succeeding clause *a so-n qasa' ga', s<m>bu' s<m>bu' qa qsya'*.

Furthermore, the *-an* form in the expression of location can be applied to the *–an* form of any other verb, in contrast to the *-un* or the *s-* form of a verb which is used to highlight an affected entity in an event. Since the *-an* form of a verb specifies a specific location where an entity exists or an event occurs, and not to the patient

relation that obtains between the predicate and an affected nominal, it is thus no wonder that the event expressed by the *-an* form of a verb is less transitive.

sa/squ' can be also used to introduce a location NP, an argument nominal obligatory to a motion verb. Consider (2.34):

(2.34) *sa/squ'* is used to introduce a location NP required by a motion verb (Sinica Archive: 01-030-b)

m-karaw	squ'	hongu'	lmga',	l-lung-un	mit squ'
AV-climb	LOC	bridge	FP:QUOT:TOP	RED-think-PV	ass LOC

zyaw	ka	kin-hera'	h\<n\>utaw=nya'		squ' gong
thing	LIG	last-yesterday	\<PST.OBJNMZ\>fall=3SG.GEN		LOC stream

qasa'	lmga'.
that	FP:QUOT:FP

'While climbing onto the bridge, the ass thought of it falling into the water the previous day.'

It can be seen from (2.34) that *hongu'* is introduced by *squ'* and refers to a location for the activity of climbing; since the location element is obligatory to the verb *m-karaw* 'climb (AV)', and, in some sense, can be interpreted as the object of the verb, it is regarded as a 'core' argument, instead of a peripheral argument of the verb. In other words, the marker *squ'* is also subsumed under **Loc2**.

Note that since the identification of the object-like location is determined by the nature of the semantics of the verb involved (i.e., the class of motion verbs), verbs like *tehuk* 'arrive', *musa'* 'go', *hminas* 'pass through' etc. also takes an object-like locative NP marked by **Loc2**. Consider (2.35):

(2.35) *Sa* introducing a location NP required by the semantics of a (motion) verb
(Sinica Archive: 01-020-c)

tehuk	sa	blihun	ka	a	syobay,	bin	bir-an
arrive	LOC	door	LIG	FIL	store	BIN	buy-LOCNMZ

nqu'	so-n	maha'	a	cimu'	qani'	mga'
GEN	say.thus-PV	QUOT	FIL	salt	this	QUOT:FP

'(They) arrived at the door of the salt store, i.e., the so-called place where people (bought) salt.'

Additionally, such a spatial relation may also be extended to a temporal domain due to their conceptual similarity, as illustrated in (2.36):

(2.36) (Sinica Archive: 11-001-b)

a	wayal	squ'…	aring	sa	kawas	wayal	ka	mpuw
FIL	go.away	LOC	begin	LOC	year	go.away	LIG	ten

byacing	tehuk	squ'	mqeru'	byacing	qani' ga'.
moon	arrive	LOC	nine	moon	this FP

'In the past… It started from last October and went on until this September.'

In (2.36), *aring* 'begin' is used to encode a required temporal source *kawas wayal ka mpuw byacing* 'last October' and *tehuk* 'arrive', a required temporal goal *mqeru' byacing qani'* 'this September. The temporal NPs are respectively introduced by *sa* and *squ'*.

Lastly, *sa* and *squ'* are also commonly known to encode the object of a semantically transitive verb.

(2.37) *sa/squ'* used to introduce an object NP of a verb, i.e., one that is required by the semantics of verbs
a. (Sinica Archive: 01-007-c)

a	p<in>lawa'	qu'	laha'	"wah	iy	m-panga'	squ'
FIL	<PST.PV>call	NOM	3PL.NOM	ASP	FIL	AV-carry.on.back	LOC

bwax	qani'	ga'."
husked.rice	this	FP

'(The rice-dealer) shouted, "Carry these packs of rice!"'
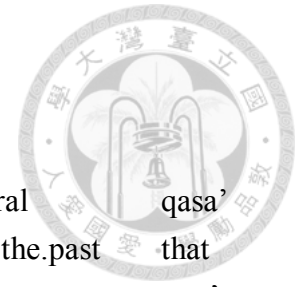
b. (Sinica Archive: 09-001-a & 09-001-b)

a	(b)nkis=ta'	raral	qasa',	te	raral	qasa'
FIL	old.man=1PI.GEN	in.the.past	that	LOC	in.the.past	that

ga',	m-usa'	rgyax	ga',	ini'	sabu'	bwax	rwa'.
TOP	AV-go	mountain	TOP	NEG	pack	husked.rice	FP

si'	ga',	si'	sa	papak	lma'	ta'.
just	TOP	put	LOC	ear	FP:QUOT	EP

'In the past, when the elders went to the mountain, they didn't pack husked rice. (They) just put (a grain of husked rice) into their ears.'

In (2.37a), *bwax* is the direct object of *m-panga'* 'carry on back (AV)'; in (2.37b), *papak* 'ear' is the indirect object of the double-object verb *si'* 'put'. Both of the two NPs are subcategorized for by their respective verbs. The markers used to introduce them, i.e., *squ'* and *sa*, are locative case markers.

However, how is a link between a subcategorized argument and a locative case marker established? Such an argument can be construed as a static entity, as if it were fixed to some location, so that it can be controlled, or an actor can exert his force on it. That is, due to its inert, stative nature, the argument nominal subcategorized by the semantics of a verb belongs to the domain of location, instead of the domain of agency, in which its referent is non-inert, dynamic. This explains why the nominal in question is introduced by a locative marker, but not the agentive-like case marker, *na'/ni'/nqu'*. Such a static-dynamic contrast also appears in Dowty's (1991) theory in distinguishing two cluster-concepts called PROTO-AGENT and PROTO-PATIENT, each characterized by a set of verbal entailments.[7] As indicated in Dowty

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[7] Dowty's (1991) theory of proto-roles is a novel attack on a traditional analysis for coping with the problem of Argument Selection in terms of discrete thematic roles (Agent, Patient, Source, etc.), namely, by means of using these roles to determine which are associated with which grammatical roles (Subject and Object). Instead, Dowty proposes that properties of event participant roles are entailed from the semantics of the predicate and these verbal properties are complementarily assigned to either of two proto-roles or both. In addition to the movement-stationary contrast, others including that of

(1991:571-75), 'stationary' is one of Proto-Patient's entailments and is relative to the property of movement given to Proto-Agent.
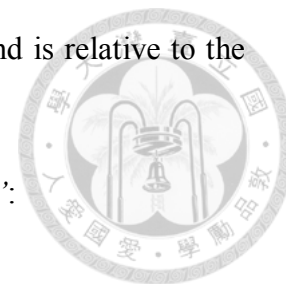
Table 2.6 summarizes the preceding discussion on *sa/squ'*:

Table 2.6: Four types of function and use of the case markers *sa/squ'* in Squliq Atayal

	Verb types	Type of *sa/squ'* NP	Type of *sa/squ'*
(1)	Most verbs (except for existential verbs and some motion verbs like *usa'* 'go'and *wah* 'come')	Locative NP	Loc1
(2)	Existential verbs (i.e., *maki'*)	Locative NP	Loc2
(3)	motion verbs (e.g., *kahul* 'come from', *hinas* 'pass through', *usa'* 'go', *wah* 'come', etc.)	Locative NP	Loc2
(4)	Semantically-transitive verbs (e.g., *qaniq* 'eat', *panga'* 'carry on back', *si'* 'put')	Object NP	Loc2

To sum up, in this section, a remodeled the case marking system in Squliq Atayal is provided, in which case markers are classified based on three hierarchically-structured parameters.

2.3.4 The Squliq Atayal personal pronoun system

The forms and functions of the personal pronoun system in Squliq Atayal are given in Table 2.7 below:

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volitional involvement vs. undergoing change of state, that of sentience vs. incremental, etc. are discussed in Dowty (1991:571-75).

Table 2.7: The personal pronoun system in (Jianshih) Squliq Atayal

PERSON NUMBER	BOUND		FREE	
	Nominative	Genitive	Locative	Neutral
1SG	=saku'/=ku	=maku'/=mu	knan	kun/ kuzing
2SG	=su	=su	sunan	isu'
3SG	-	=nya'	(hyan)	hya'
1PL (Inclusive)	=ta	=ta	'tan	ita'
1PL (Exclusive)	=sami'	=myan	sminan	sami'
2PL	=simu'	=mamu'	smunan	simu'
3PL	-	=naha'	-	l(a)ha'
1SG.GEN + 2SG.NOM	=misu'			

Similar to the observations made in previous studies (Egerod, 1966; Rau, 1992; L. Huang, 1993, 1995b; Starosta 1999; Liao 2004), the personal pronoun system in Squliq specifies the following features:

i. Person: there are three sets of the system (first, second, and third);

ii. Number: the system makes a distinction on singular and plural pronouns;

iii. Free/bound contrast: the system can be realized in another dimension: bound vs. free. The bound pronouns cover the nominative and genitive sets, in which pronouns are clitics, whereas the locative and neutral forms separately constitute different sets of free pronouns[8];

iv. The inclusive-vs.-exclusive contrast for 1st person plural pronouns: 1st person plural pronouns are further divided into inclusive and exclusive forms;

v. A portmanteau form: =misu is a special form that combines the 1st person

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[8] In previous studies on Squliq Atayal, which is spoken in different districts, the neutral forms and locative forms were given different terms by different researchers: Rau (1992) used the terms NOM and DAT; L. Huang (1995b) used the terms NEU and LOC; L. Huang (1993) used the terms NOM and LOC, and Starosta (1999), NOM/GEN and LOC, and Liao (2004), Core and NEU respectively. The terminology adopted in this study is identical to the one used in L. Huang (1995b).

singular genitive and 2nd person singular nominative.
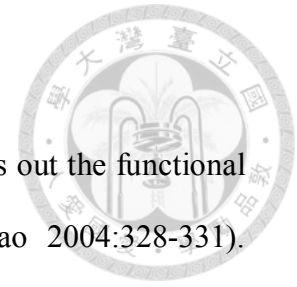
In addition to the very common features (i) to (ii), Liao also points out the functional equivalence between personal pronouns and case markers (Liao 2004:328-331). Nominative pronouns are the pronominal equivalents of *qu'*-marked full noun phrases in their function of marking the subject of a clause, and genitive pronouns correspond to *na'/ni'/nqu'*-marked full noun phrases, which are used for specifying the actor in a UV clause and the possessor in a possessive construction. (2.38) and (2.39) illustrate the two types of equivalence:

(2.38) **nominative bound pronoun as the subject of a monadic clause**
a. nominative bound pronoun as the subject of a monadic clause
    (Sinica Archive: 13-012-a)
    m-'abi' =ku   bih=nya'.
    AV-sleep=1SG.NOM   side=3SG.GEN
    'I slept beside him.'

b. nominative bound pronoun as the subject of a dyadic (*m-*) clause
    (Sinica Archive: 17-003-a)
    m-usa'=sami   lga',   nanu'   m-(')aras=**sami**   squliq.
    AV-go=1PE.NOM   FP:TOP   what   AV-bring=1PE.NOM   person
    'We went (there in order to) bring the bride home.'

c. nominative bound pronoun as the subject of a dyadic (*-un*) clause
    (Sinica Archive: 16-017-f)
    qlup-un=**ta'**=naha'   sa   rgyax   la'.
    hunt-PV=1PI.NOM=3PL.GEN   LOC mountain   FP
    'They hunted us out of the mountain.'

d. nominative bound pronoun as the subject of a dyadic (-*an*) clause
(Sinica Archive: 03-004-a)

iy   si'=su   qihul   m-usa'   ga', ini'   ga',
FIL   just=2SG.NOM   force   AV-go   TOP NEG   TOP
kut-an=**su**   soki'.
cut-LV=2SG.NOM   billhook
'If you forced yourself to go somewhere, you would be hurt with a knife.'

e. nominative bound pronoun as the subject of a dyadic (*s-*) clause[9] (Elicited)

s-tahuq=**sami'**   ramat   ni' yumin.
CV-cook=1PE.NOM   dish   GEN PN
'Yumin cooked for us.'

(2.39) **Genitive bound pronoun**

a. genitive bound pronoun as the actor of a dyadic (-*un*) clause
(Sinica Archive: 10-023-b)

wal, wal=**nya'**   hor-un   kwara'   tuqiy.
ASP ASP=3SG.GEN   flush-PV   all   road
'It (i.e., the flood) washed all the roads away.'

b. genitive bound pronoun as the possessor in a possessive construction and
the actor of a dyadic (-*an*) clause
(Sinica Archive: 20-002-a)

pzit   qani'   hya'   ga', qu'   raral   ka
sparrow this   3SG.NEU TOP NOM   in.the.past   LIG
(b)nkis=ta'   raral   ga', m-usa'   qmayah mga',
old.man=1PI.GEN   in.the.past   TOP AV-go   field   QUOT:TOP
iy,   s<m>hu'   trakis   ru, 'sa-n=**naha'**   phapuy.
FIL   <AV>pound.rice millet   and go-LV=3PL.GEN   cook(.AV)
'Concerning the sparrow, when our ancestors went to the field, they
pounded rice and cooked there.'

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[9] In natural data, examples of a nominative bound pronoun serving as the subject of a dyadic (*s-*)
clause are not found; however, it can be elicited, as in (2.38e).

c. genitive bound pronoun as the actor of a dyadic (*s-*) clause
(Sinica Archive: 01-014-d)

s-panga'=**nya'**		kwara'	qu'	spat	na'	yubing
CV-carry.on.back=3SG.GEN		all	NOM	eight	GEN	bag
ka	bwax	qani'	ma'.			
LIG	husked.rice	this	QUOT			

'(…and so) it carried all the eight packs of rice.'

d. genitive bound pronoun as the possessor in a possessive construction
(Sinica Archive: 10-019-a)

m-sthay	qu'	ngasal=**maku'**	kun	hya',	ngasal
AV-left.over	NOM	house=1SG.GEN	1SG.NEU	3SG.NEU	house
uraw	ga'.				
soil	FP				

'What was left was my house, i.e., the soil-made house.'

It is important to note, however, that genitive pronouns fail to correspond to *na'/ni'/nqu'*-marked full noun phrases when they are used to specify an instrument entity, an important point to make with respect to the syntax of Squliq Atayal. No two NPs or pronouns are allowed to refer to the same entity or the same participant role. Compared with the instrumental *na'*, the clitic actor pronoun *na'* marks a core argument. Two NPs may be marked by the same form *na'*, but they are grammatically different categories.

The two sets of free pronoun, namely locative pronouns and neutral pronouns, are used less frequently than the two sets of bound pronouns, and are rarely found in natural discourse data. To illustrate their usage, I can only provide elicited data.

A locative pronoun is used to express an argument which is conceptualized as an entity occupying a locus and often co-occurs with a predicate denoting location or motion. For example, it can be used to specify a location where a participant is or has come to be (cf. L. Huang 1998 for Wulai dialect), as in (2.40a); or, it can be

44

understood as a receiver, as in (2.40b)[10]; or it co-occur with a motion verb (e.g., *aring* 'start from' and *tehuk* 'reach' to indicate that the locative pronoun refers to someone in motion, or metaphorically to the source or destination of a motion event, as in (2.40c):
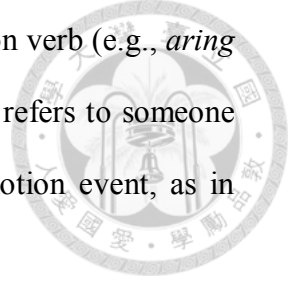
(2.40) **Locative pronouns**

a. Locative pronoun *knan* referring to as an entity is some location and co-occurring with a location noun (Sinica Archive: 01-015-f)

a	k<m>al	qu'	q<n>ayat	qasa'	ma',
FIL	<AV>speak	NOM	<PFV.OBJNMZ>rear	that	QUOT

"laxi'	[k-]ngungu'.	**knan**	gleng"	so-n=nya'		ma'.
NEG	[STAT-]fear	1SG.LOC	front	say.thus-PV=3SG.GEN		QUOT

'The donkey keeper said, "Don't be afraid! I will (go) in front (of you)/I will go first."'

b. Locative pronoun *knan* referring to the recipient of a message (Sinica Archive: 25-012-c)

"aya',	wal=su	s-kal	**knan**	maha'	baziy",
mother	ASP=2SG.GEN	CV-speak	1SG.LOC	QUOT	buy

so-n=nya'.
say.thus-PV=3SG.GEN

'"Mother, what was it you wanted me to buy?" She asked.'

c. Locative pronoun *knan* as the source of a motion event (Human:207-208)

aring	**knan**	qani'	lga',	ini'	tnaq	lozi'.
begin	1SG.LOC	this	FP:TOP	NEG	the.same	again

'However, from me, (everything) will be totally different.'

Neutral pronouns, as noted in Liao (2004), may be used to express core

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[10]A locative pronoun then may be seen as referring to an entity capable of establishing a spatial sphere toward which an animate or inanimate object (such as content) moves, yielding an interpretation as a spatial location or as a possessor.

arguments. However, they cannot appear as an argument in A function. Consider (2.41):

(2.41) **Neutral pronouns**

a. Neutral pronoun *kun* as the S role of a monadic clause
   (Sinica Archive: 04-006-f)

   kun   qu'   m-usa'   lama'   k<m>al   maha'.
   1SG.NOM.FR   NOM   AV-go   first   <AV>say   QUOT
   'I would make a preclude (before the pulpitry).'

b. Neutral pronoun *laha'* as the S role of a monadic clause
   (Sinica Archive: 11-008-e)

   uy,   nkux   qu'   laha'   ma'.
   EXCL   frighten(.AV)   NOM   3PL.NEU   QUOT
   'Oh! All of them got frightened.'

c. Neutral pronoun *hya'* as the O role of a dyadic (-*un*) clause
   (gaga' na' Atayal: 73-75)

   a   lanse   ga', baha'   balay,   ini'   balay
   FIL   blue.color   TOP how.come   true   NEG   true

   baq-i   **hya'**   rwa'.
   know-NEG.UV   3SG.NEU   FP
   'As for blue, it is true that (I) don't know it (i.e., the word for "blue" in Atayal).'

d. Neutral pronoun *hya'* as the E role of a monadic clause (Sinuw: 41-43)

   nanu'   sinuw   ka nyux=ta'   s-tubux   qa'
   what   sago   LIG EXT.IMM=1PI.GEN   RV-cultivate   DEM

   mga',   nanu'   m-usa'=ku   mluw   **hya'**
   QUOT:TOP what   AV-go=1SG.NOM   follow.AV   3SG.NEU

   t<m>ubux.
   <AV>cultivate
   '(I heard) sago was what we were going to plant; I went to plant with somebody.'

46

In addition to serving as a 'core' argument, a neutral pronoun has other functions. It can serve as predicate of an equational sentence, topic, or a possessor:
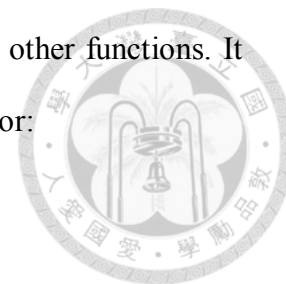
(2.42)

a. Neutral pronoun *kun* as the predicate of an equational sentence
    (Sinica Archive: 04-005-b)

sasan	lga',	kun	qu'	sikay	ga'.
morning	FP:TOP	1SG.NEU	NOM	preside	FP

'I then became a presider next morning.'

b. Neutral pronoun *ita'* as a topic (Sinica Archive: 12-028-b)

"nanu'	yasa'	qu',	ita'	ka	laqi'	ga',	laxi'=ta'
what	that.way	NOM	1PI.NEU	LIG	child	TOP	NEG=1PI.GEN

iy	pbasi'."
FIL	exaggerate

'Therefore, as for us, being a child, we can't overstate (our ability).'

c. (Sinica Archive: 10-012-c, 10-012-d)

wal	qa'	wal	iy	ini'=nya'	hor-i'	ngasal=myan	ga'.
ASP	this	ASP	FIL	NEG=3SG.GEN	flush-UV.NEG	house=1PE.GEN	FP

hya'	**hya'**	ga',	maki'	balay syaw	nqu' a	llyung	qa'.
3SG.NEU	3SG.NEU	TOP	exist.AV	true edge	GEN FIL	river	DEM

'However, (the flood) didn't wash our houses away. As for him, he truly stayed beside the river.'

Besides, neutral pronouns are associated with the notion of possession in two aspects. First, they can serve as a possessor in a possessive construction and are introduced by a genitive marker, as in (2.43). Second, neutral pronouns can co-occur with *hya'* in topic position or sentence-final position to refer to the same entity specified by the genitive pronoun in a possessive noun phrase in the immediately following or preceding predicate phrase, as in (2.44a) and (2.44b) respectively:

(2.43) Neutral pronoun *ita'* as a *na'*-marked possessor in a possessive noun phrase (Sinica Archive: 19-002-c)

gaga'	nqu'	ita'	tayal	qa'	anay=maku'
norm	GEN	1PI.NEU	Atayal	DEM	ANAY=1SG.GEN

p<in>qzyu'	simu'.
<IN>transmit	2PL.NEU

'As for the Atayal norms, let me tell you.'

(2.44)

a. Neutral pronoun *kun* occurring in topic position and referring to the possessor specified by a genitive pronoun in a following possessive noun phrase (Sinica Archive: 05-013-a)

nanu'	**kun**	hya	ga',	k-'aki'=maku'		baq
what	1SG.NEU	3SG.NEU	TOP	deceased-grandmother=1SG.GEN		MOD

h<m>gup	ru.
<AV>divine	and

'Take myself (i.e., my family) as an example; my late grandma could perform divination.'

b. Neutral pronoun *kun* occurring in topic position and referring to the possessor specified by a genitive pronoun in an immediately preceding possessive noun phrase (Sinica Archive: 06-005-d)

maha'	qu'	a	ke'	nqu'	a	nbkis	ka
say	NOM	FIL	word	GEN	FIL	old.man	LIG

p<n>ung-an=maku'	**kun**	hya'.
<PST>hear-LOCNMZ=1SG.GEN	1SG.NEU	3SG.NEU

'This is what I have heard (about the rainbow) from elders.'

The concepts embodied in locative pronouns, namely that of spatial location and that of possessor, do not apply to neutral pronouns. On the other hand, neutral pronouns have a number of other functions not seen in locative pronouns: They may appear in topic position (2.44a), in a cleft construction (2.44b), or serve as a response to a question. Moreover, since neutral pronouns bear no case information, they are free to co-occur with a nominative case-marked bound pronoun (2.44a), or a genitive bound pronoun (2.44b) (Cf. L. Huang 1995).

The use of the personal pronouns in (Jianshih) Squliq Atayal has no sharp distinction mentioned in other studies (Egerod, 1966, 1980; L. Huang 1989, 1993, 1994, 1995; Rau 1992).

Pronouns in the nominative set have functions identical to those of the case marker *qu'*: both are used to specify either the sole argument of a monadic clause, or the actor argument of a dyadic clause, or the undergoer argument of a dyadic *-un* clause, a dyadic *-an* clause, or a dyadic *s-* clause, as in Section 2.3.7.

As for pronouns in the genitive set, they can specify either the actor argument of any UV clause or the possessor in a possessive noun phrase; this corresponds to the functions of *na'* discussed in Section 2.3.7. That is, functions of genitive pronouns are identical to those of case markers *na'/nqu'/ni'*. But note that the 3rd person pronoun *=nya'* can also be used to refer a non-person or non-human entity.

2.3.5 Voice and tense/aspect/mood paradigm

Squliq Atayal, like most other Formosan languages, has been traditionally regarded as having a remarkable four-way voice system to express an agreement between a verbal predicate and the thematic role of its subject.

The first voice to be discussed is Patient Voice, which takes patient as the subject and the voice affix on the verb is *-un*. (2.45) is an example.

(2.45)
a. (Sinica Archive: 12-001-a)

a	maki'	qutux	mrkyas	ga',	kyal-un=nya'
FIL	exist.AV	one	young.man	TOP	speak-PV=3SG.GEN

yutas=nya'	ma'.
grandfather=3SG.GEN	QUOT

'There was a man who told something to an old man.'

b.   (Sinica Archive: 20-003-a)

baha'   m-swa'   raral   qasa'   mga',

how.come   AV-why   in.the.past   that   QUOT:TOP

shu-n=naha'   qu'   trakis   mru.

pound.rice-PV=3PL.GEN   NOM   millet   QUOT:and

'In the past, they pounded the millet.'

The second voice construction is the Locative Voice construction, whose subject
is a location argument and the voice affix is *-an*, as illustrated in (2.46):

(2.46)

a.   (Sinica Archive: 01-015-d)

kta-n   qu'   hongu'   qani'   mga',   "ay",

see-LV   NOM   bridge   this   QUOT:TOP   EXCL

m-nglung   qu'   mit   qani'   lma'.

AV-think   NOM   ass   this   FP:QUOT

'After it saw the bridge, the ass sighed (with disappointment) and thought.'

b.   (Sinica Archive: 01-032-c)

a   s'un-an   qsya'   kwara'   sbus   qani'   lga',   wa',

FIL   fill-LV   water   all   cotton   this   FP:TOP   EXCL

si'   gluw   l-lyung   qani'.

just   together   RED-river   this

'When cotton was filled with water, (the ass) went with the water.'

The third voice construction is the Instrument/Beneficiary Voice construction, in
which the subject denotes instrument or beneficiary participant in the event specified
by a verb affixed with a *s-* voice marker. Examples are given in (2.46):

(2.47)

a. (Sinica Archive: 08-003-c)

s-'pux=nya'   babaw=nya'   mga'.
CV-press=3SG.GEN   above=3SG.GEN   QUOT:FP

'She pressed herself (with stalks of pigeon peas).'

b. (Sinica Archive: 14-003-c; 14-004-a)

"musa'   hya'   nanak   maniq."   s-sulin=naha'   btunux
ASP   3SG.NEU   only   eat.AV   CV-burn=3PL.GEN   stone

lma'.
FP:QUOT

'"Only he can eat (what we have caught)." They burned stone(s) for (him).'

The last voice construction is the AV construction where the voice affix is *m-*, *<m>*, or the verb stem alone, and its subject covers a variety of thematic roles: agent, patient, theme, or experiencer. In the traditional analysis, agent is used as a cover term for these distinct roles. Consider the following examples:

(2.48)

a. (Sinica Archive: 10-024-b)

g<m>uyaw=sami   l-lyung   lru,   m-usa'
<AV>wade.across.a.river=1PE.NOM   RED-river FP:and   AV-go

neywan   la'.
Neiuan   FP

'We waded across the river to go to Neiuan.'

b. (Sinica Archive: 01-025-g)

m<s>qsya'   qu'   cimu'   la   ma'.
AV<become>water   NOM   salt   FP   QUOT

'Salt melted in water.'

c. (Sinica Archive: 16-013-e)

lokah	mgey	qu' mlikuy	giy	ini'=naha'
major(.AV)	run.away.AV	NOM male	because	NEG=3PL.GEN

pyang-i'	k<m>ut	shya'	rwa'.
easy-UV.NEG	<AV>cut	that:3SG.NEU	FP

'(Contrarily,) men were good at fleeing so they were not easy.'
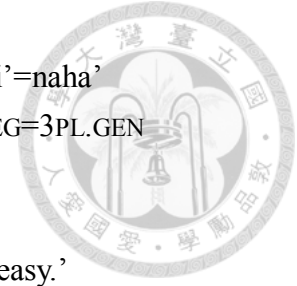
In addition to the various markers which are affixed to a verbal predicate in the clause, categories like aspect, tense, and mood can also be marked on the predicate. This is a cross-linguistic behavior for a verbal predicate (Comrie 1976; Bybee 1985a:13). In Squliq Atayal, the five basic tense/aspect/mood (TAM) categories are neutral, future, past, imperative and subjunctive.

A neutral voice form is used to describe habitual situations, whether they appear in a past event or not. In a habitual situation, some specific form is used to specify the subject of a voice construction. In (2.48), *m-* in *musa'*, *-un* in *(g)al-un* and *puzy-un*, *-an* in *sy-an*, and *s-* in *s-hngaw* are neutral forms for each of the voice constructions. It is worth noticing that the neutral form is also used in realis situations (Givón 1994:152).

(2.48)

a. (Sinica Archive: 09-001-a, 09-002-b)

a	(b)nkis=ta'	raral	qasa',	te	raral	qasa'
FIL	old.man=1PL.GEN	in.the.past	that	LOC	in.the.past	that

ga',	**m**-usa'	rgyax	ga',	ini'	sabu'	bwax	rwa'.
TOP	AV-go	mountain	TOP	NEG	pack	husked.rice	FP

(g)al-**un**=naha'	bwax	bwax	qasa'	lga',
take-PV=3PL.GEN	husked.rice	husked.rice	that	FP:TOP

puzy-**un**=naha'	ru	qutux	nabe'	lma'	qu'	bwax
cook-PV=3PL.GEN	and	one	pot	FP:QUOT	NOM	husked.rice

qasa'	ga'.
that	FP

'In the past, when the elders went to the mountain, they didn't pack up

husked rice. They took the husked rice, they cooked it, and there came a pot (of rice) afterwards.'
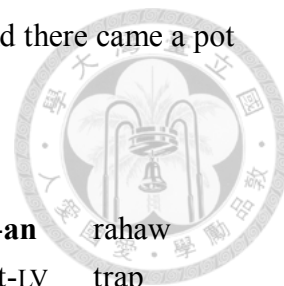
b. (Sinica Archive: 12-031-b, 12-031-c, 12-031-d)

baha'   maki'   qu'…   baha'   si'   sy-**an**   rahaw
how.come   exist.AV   NOM   how.come   just   put-LV   trap

qu'   ungat   alup=nya'   pi.   ungat   alup.   (g)al-**un**,
QU'   NEG   leaf.bud=3SG.GEN   FP   NEG   leaf.bud   take-PV

(g)al-un=nya'.
take-PV=3SG.GEN

'Therefore, since there is no leafbud, how could it be possible that people set the trap there? There is no leafbud. Birds have taken the leafbud away.'

c. (Sinica Archive: 13-008-b)

bzinah   ga',   **s**-hngaw=naha'   hma'.
the.other.side   TOP   CV-rest=3PL.GEN   FP:QUOT

'They would let the other side of her face.'

The future form usually expresses an event or situation that takes place after the speech act time. The future AV affix is *p-*; the future PV form remains *-un*; the future form to specify a location subject is *–un*; and in the future IV/BV form, the affix is a either CV-reduplication form or a zero form. Examples are given in (2.50):

(2.50)

a. (Sinica Archive: 02-005-b)

ana'   ga', a **p**-hbyaw   iy   bqanux   ru   bzyok
no.matter   TOP FIL FUT.AV-chase   FIL   deer   and   pig

ka… mutux   h<m>inas   ska'   gung   pi.
FIL   then   <AV>pass.through middle   stream   FP

'However, when they wanted to chase deer and boars, they then passed through the stream.'

b. (Sinica Archive: 07-006-b)

"ini'=simu	k-lokah	ga',	niq-**un**=maku'	qu'
NEG=2PL.NOM	STAT-hard	TOP	eat-PV=1SG.GEN	NOM

ngahi'=mamu'	la'."
sweet.potato=2PL.GEN	FP

'It you don't work hard, I will eat your sweet potatoes up.'
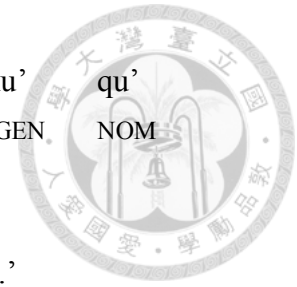
c. (Sinica Archive: 01-019-c)

"ini'=su	qngzyat	lga',	a	(i)yat=ta'=naha'
NEG=2SG.NOM	diligent	FP:TOP	FIL	NEG=1PI.NOM=3PL.GEN

biq-**un**	pila'	la'	ay"	ma'.
give-PV	money	FP	FP	QUOT

'"If you aren't diligent, they will not pay us money." (He told his ass that.)'

d. (Sinica Archive: 01-010-e)

"talagay	yal	qu'	**p**-panga'=ta'	qani'."
EXCL	very	NOM	RED(.CV)-carry.on.back=1PI.GEN	this

'Why do we have to carry so much later?'

e.

kbalay=mu	na'	qwow	qu'	ciwas.
make(.CV)=1SG.GEN	still	wine	NOM	PN

'I will make wine for Ciwas.'

As shown in (2.50), future events refer to those that have the potential to occur, but have not been actualized yet; there is then a functional link between the 'future' tense and potential mood or irrealis (Chung and Timberlake 1985; Givón 1994:270).

(-i)n- is a marker used to indicate realis events, so it can be affixed to a neutral AV, a neutral PV and a neutral LV form; but when expressing an event with an instrument/beneficiary participant as the argument, the language either uses the past tense marker attached to a base form (e.g., (2.51d)) or uses the neutral *s*-marking form (e.g., (2.51e)).

(2.51)

a. (Sinica Archive: 15-003-c)

m\<in\>hbyaw=myan   iy   a   siliq   ka…

AV\<PST\>chase=1PE.GEN   FIL   FIL   omen.bird   KA

'We went to chase the omen bird.'

b. (Sinica Archive: 13-001-d)

k**\<(i)n\>**alay=naha'   qhuniq   qa'   ru.

\<PST.PV\>make=3PL.GEN   tree   DEM   and

'They made the wooden post.'

c. (Sinica Archive: 13-004-b)

semong   qu'…   qasa'   hya'   lga',

expert(.AV)   NOM   that   3SG.NEU   FP:TOP

g**\<in\>**yag-**an**=naha'   semong   qasa'   m-usa'

\<PFV\>choose-LV=3PL.GEN   expertise(.ACTRNMZ)   that   AV-go

matas   lga'.

tattoo.AV   FP:FP

'That (i.e., the tattooer) was a professional; people would choose the one whose specialty was tattooing.'

d. k**\<in\>**alay=mu   qwow   qu'   ciwas.

\<PST.CV\>make=1SG.GEN   wine   NOM   PN

'I made wine for Ciwas.'

e. **s**-kbalay=mu   qwow   qu'   ciwas.

CV-make=1SG.GEN   wine   NOM   PN

'I made wine for Ciwas.'

As for the imperative, it is known to be used for the purpose of imposing one's will on others for the purpose of issuing directives like commands, requests, prohibitions, etc (Aikhenvald 2010). To express the imperative, in Squliq Atayal, three different devices are recruited for different voice types: *-i* is for both PV and LV form, while *-an* (or an auxiliary form *an* placed before a neutral CV form) is for CV form.[11]

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[11] Egerod (1965) claims that the imperative form of an instrument or a beneficiary form is the

In an AV imperative, it uses the base form of a dynamic verb or prefixes *k-* to the base

form of a stative verb.

(2.52)

a.   (Sinica Archive: 01-004-c)

maki'   qutux   ka   b-bir-an   bwax   ga',

exist.AV one   LIG   RED-buy-LOCNMZ   husked.rice   TOP

bir-an   bwax   k<m>al   maha',

buy-LOCNMZ husked.rice   <AV>speak   QUOT

"**aras**   cikay   mit=su   ha'."

bring.AV.MP   a.bit   ass=2SG.GEN   FP

'At a rice-store, (a rice-dealer) said, "Bring your ass here!"'

b.   (Sinica Archive: 05-005-c, 05-005-d)

maha'   laxi' sk-ay   ga',   ini' sk-ay   ay.

say   NEG halve-LV.HORT   TOP   NEG halve-LV.HORT FP

si'   gal-i'   nqu'   h<n>gup.

just   take-UV.IMP   GEN   <PST.OBJNMZ>divine

'If (the dream) said (the sacrifice) is not to be halved, then it couldn't be

halved. It had to be the oracle taken as a whole.'

c.   (Atayal custom: 1119-1121)

"aba',   biq-**i'**   qutux   ay, ciliq=su!"   ma'.

father   give-UV.IMP   one   FP catch=2SG.NOM   QUOT

'"Father, (please) give (me) one game! (When you catch them,)" (said he.)'

d.   ttw-**an**   cikay   qhuniq   qu'   ciwas.

chop.down-BV.IMP a.bit   tree   NOM   PN

'Chop down wood for Ciwas!'

We should note that the imperative forms are identical to the negative forms for

the corresponding voice types. Polarity is also known to be a category usually

inflected in a verbal predicate.

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periphrastic construction *an s-*. However, in modern Atayal, the *s-* marker is often dropped from the
construction.

(2.53)

a. (gaga' na' Atayal: 761-763)

aw	ru,	ini'	**aras**	qutux	laqi'	mlikuy?
right	and	NEG	take(.AV.NEG)	one	child	male

'Yes. (But) didn't they take a boy (to go with them)?'

b. (gaga' na' Atayal: 191)

ini'	**k**-lokah	maniq	qasa'	qu',
NEG	STAT-strong(.AV.NEG)	eat.AV	that	NOM

'(He) didn't eat that attentively.'

c. (gaga' na' Atayal: 191)

ini'=mu	baq-**i'**	lrwa'.
NEG=1SG.GEN	know-UV.NEG	FP:FP

'I don't know.'

d. (Sinica Archive: 19-006-c)

ini'	**an**	**s**-blaq	m-qyanux.
NEG	AN	BV-good	AV-live

'That wouldn't make life good.'

The subjunctive also belongs to the mood category. It is generally regarded as a mild imperative, i.e., an indirect way for the speaker to cause people to do things. It is often called 'jussive' or 'hortative' (Dixon (2010) (Vol. 1): 96). In Squliq Atayal, the imperative forms are marked with a suffix in all voice constructions: -*a* is for AV, -*aw* for PV, -*ay* for LV, and *s-...-anay* (or an auxiliary marker *anay* placed before a neutral CV form) for CV.

(2.54)

a. (Sinica Archive: 02-011-g)

"**m**-kyal-**a**=ta'	ha."
AV:REC-speak-AV.SUBJ=1PI.NOM	FP

'"Let's talk about it!" (, said the leader of the Mrqwang clan.)'

b. (Atayal custom: 2349)

"wah-ay=misu   magal !" ma'.
come-LV.HORT=1SG.GEN+2SG.NOM   take.AV   QUOT
'"Let me come to drive you (home)!" (, said he.)'

c. (Sinica Archive: 267-274)

"yutas!"   so-n=nya'.   "a,   klay-aw=ta'
grandfather   say.thus-PV=3SG.GEN   FIL   make-PV.HORT=1PI.GEN

ngasal=su   qani'   la'. anay=myan   s-biq
house=2SG.GEN   this   FP   ANAY=1SG.GEN   BV-give

isu',   kinyal=myan   isu',   an   s-ramuw
2SG.NEU   memorize=1PE.GEN 2SG.NEU   AN   BV-put.on.a.roof.on.a.house

tatak=su!"   s-on=nya'.
hut=2SG.GEN   say.thus-PV=3SG.GEN
'"Grandpa", said him, "Let's build a house here for you; let's give you the house; let's do it for you; let's put a sailcloth on your hut."'

d. (Sinica Archive: 01-030-d)

"anay=ta'   s-'bul   qsya'   qu'   sbus   qani'
ANAY=1PI.GEN   BV-dip   water   NOM   cotton   this

uzi'   ay."
also   FP
'"Let the cotton drink water!" (, said he.)'

In addition to verbal inflections, there are three highly-frequent auxiliaries used in the expression of tense, aspect, or mood information, and they are *cyux/nyux*, *wal* (or *wayal*) and *musa'*.

Cyux and *nyux* are used to express imperfective (or continuous) events. They differ in whether an action or event takes place in a location near the speaker or not. *Cyux* is used when the action or event takes place in a location away from the speaker (e.g., (2.55a) and (2.55b)), while *nyux* close to him (e.g., (2.55c)).

(2.55)

a. (Atayal custom: 4-6)

    H: .. ciwas,
            PN
        "Ciwas." (H said.)'

    C: … m.
            DM
        '"Mhm." (, C replied.)'

    H: … **cyux**=su   aki'   m-'abi'   ga'.
            ASP=2SG.NOM   MOD   AV-sleep FP
        '"Are you sleeping?" (, H asked.)"

b. (Sinica Archive: 12-019-c)

    "**cyux**=su   bhlg-un   la'." so-n=nya'   ma'.
      ASP=2SG.NOM   bind-PV   FP   say.thus-PV=3SG.GEN   QUOT
    'He said, "Have you set up?"'

c. (gaga' na' Atayal: 1-3)

    nanu',   **nyux**=ku   m-'abi'.   nyux=ku   m-nguqu'.
    what   ASP=1SG.NOM AV-sleep ASP=1SG.NOM AV-take.a.nap
    '(You are) right. I am sleeping. I am taking a nap.'

Wal (or *wayal*) is used when the speaker regards an event as completed, bound for its internal temporal constituency of a situation. In this sense, it is a perfective marker, and is in contrast with the imperfective *cyux* and *nyux*, which focus on the temporal contour of an event. According to Comrie (1976) and Smith (1991), the perfective (including inceptive, punctual and completive) views a situation as a bounded entity, while imperfective in contrast does not view the situation as bounded, but rather as ongoing.

(2.56)

a. (Sinica Archive: 01-033-g)

wal lima' **m**<q>qluy mit.
ASP already AV<RED>float ass
'The ass had been drawn away.'

b. (Sinica Archive: 08-005-e)

aw laqi' (k)neril **wal m**-tkara'.
right child female ASP AV-pigeon
'That's right! The girl became a pigeon.'

c. (Sinica Archive: 01-033-j)

wal ras-**un** sbus lgiy s'un-an qsya' lma'.
ASP bring-PV cotton FP:because fill-LV water FP:QUOT
'(It) was taken by the cotton, which sucked water fully.'

d. (Sinica Archive: 02-009-g)

"**wayal** cqiry-**an** na' a mknazi' qu' kneril=mamu"
ASP tease-LV GEN FIL Mknazi NOM female=2PL.GEN

maha'.

QUOT
'The Mknazi people teased your girls.'

e. (Sinica Archive: 07-005-c)

wal=nya' **s**-betaq qcyan yasa' lru.
ASP=3SG.GEN IV-stab buttock that.way FP:and
'However, she stabbed (the small hoe) into the buttock.'

musa' is another imperfective auxiliary verb, meaning 'be…-ing'.

(2.57)

a. (Sinica Archive: 04-012-b)

kt-ay	yasa'	qu',	ana'	lung-un	ga',
see-LV.HORT	that.way	nom	no.matter	think-PV	TOP

qpzing	na'	utux		ka	giqas	**musa'**
power	GEN	ancestral.spirit		LIG	new(.AV)	ASP

m-wah	ga',	si'	ga'	snh-i'=ta'		qu'
AV-come	TOP	just	TOP	believe-PV.IMP=1PI.GEN		NOM

yasukilisto	ma'.
Jesus.Christ	QUOT

'So, no matter whether we take into consideration the new coming power (i.e., new religion), we should still believe in Jesus Christ.'

b. (Sinica Archive: 01-029-c)

"a	nway	nway,	**musa'**=ta'	thyay-**un**."	maha'	qu'
FIL	alright	alright	ASP=1PI.GEN	able-PV	say	NOM

mit	qani'	mga'.
ass	this	QUOT:FP

'"That's all right! We are still capable (of carrying)." The ass said.'

c. (Sinica Archive: 02-001-a)

a	**musa'**=maku'	**s**-pqzyuw	qani'	hya'	ga',	zyaw
FIL	ASP=1SG.GEN	IV-transmit	this	3SG.NEU	TOP	thing

nqu' ka	p<in>triq-an		nqu'	rgyax	ka	a
GEN FIL	<PST>fight-LOCNMZ		GEN	mountain	LIG	FIL

tapung	ga'.
Lidongshan	FP

'What I am going to talk about is the battle that happened in the mountain in Tapong.'

As stated, *musa'* can be equated with future tense. But *musa'* can also express a modal concept of intention or possibility (Dixon (2010 (Vol. 1):96), and is thus subsumed under the category of modality.

Table 2.8 summarizes the preceding discussion on the Squliq Atayal voice

system, along with its interaction with tense, aspect, and mood.

Table 2. 8: The Atayal voice system as its interaction with tense, aspect, and mood
（Ⅰ）

Voice / Tense, mood, aspect		AV	PV	LV	IV/BV
Tense	Neutral	((-)m-)V	V-un	V-an	s-V
	Past	(-(i))n-V	(-(i))n-V	(-(i))n-V-an	(-(i))n-V; s-V
	Future	p-V	V-un	V-un	wal s-V
Mood	Imperative	V	V-i	V-i	cyux/ nyux s-V
	negative	V	V-i	V-i	V; CV-Red.
	Subjunctive	((-)m-)V-a	V-aw	V-ay	(s-)V-an; an (s-)V
Aspect	Perfective	wal ((-)m-)V	wal V-un	wal V-an	(s-)V-an; an (s-)V
	Imperfective (Continuous)	cyux/nyux ((-)m-)V	Cyux/nyux V-un	cyux/nyux V-an	s-V-anay; anay s-V
	Imperfective (be… Ving)	musa' ((-)m-)V	musa' V-un	musa' V-an	musa' s-V

It is of interest to note that among younger speakers past tense expressions marked by <*(i)n*> are often in free exchange with the perfective expressions marked by *wal* , and the future expressions marked by *p-/-un*/base or CV-reduplication are freely substitutable with the imperfective expressions marked by *musa',* as shown in (2.57):

(2.58) a. Past (i.e., <*(i)n*>) <=> Perfective (i.e., *wal*)
      b. Future (i.e., *p-/-un*/base or CV-reduplication) <=> Imperfective (i.e., *musa'*)

The contrast in (2.58a) between past/perfective and future / imperfective can be

interpreted as a contrast beteeen realis and irrealis, in other words, a binary perspective on the reality of events (Comrie 1976; Chung and Timberland 1985; Elliott 2000; among others). A realis interpretation of an event views a situation as something that has already happened, and so it is natural to associate realis with past tense. In contrast, irrealis refers to a situation which is perceived to exist only in a non-real world, so it naturally aligns with the future tense.

From the perspective of reality, which is a mood concept, a full-scale system for the interaction between voice and tense/aspect/mood (TAM) is provided in Table 2.9.
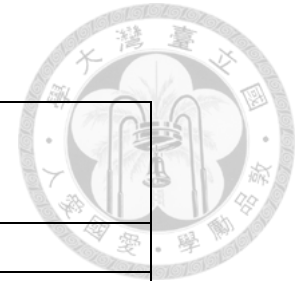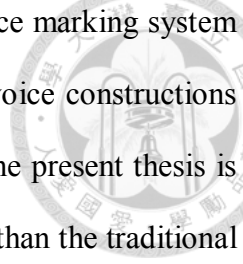
Table 2.9: The Atayal voice system as its interaction with tense, aspect, and mood (Ⅱ)

				AV	PV	LV	IV/BV
Reality	Realis	Tense	Neutral	((-)m-)V	V-un	V-an	s-V
			Past	(-(i))n-V	(-(i))n-V	(-(i))n-V-an	(-(i))n-V; s-V
		Aspect	Perfective	wal ((-)m-)V	wal V-un	Wal V-an	wal s-V
			Imperfective (Continuous)	cyux/ nyux ((-)m-)V	cyux/ nyux V-un	cyux/ nyux V-an	cyux/ nyux s-V
	Irrealis	Tense	Future	p-V	V-un	V-un	V; CV-Red.
		Mood	Imperative	V	V-i	V-i	(s-)V-an; an (s-)V
			negative	V	V-i	V-i	(s-)V-an; an (s-)V
			Subjunctive	((-)m-)V-a	V-aw	V-ay	s-V-anay; anay s-V
		Aspect	Imperfective (be… Ving)	musa' ((-)m-)V	musa' V-un	musa' V-an	musa' s-V

In this section, I have shown how the traditional, four-way voice marking system is employed in natural discourse. I have adhered to the four-way voice constructions in the analysis of the TAM system, although the ultimate goal of the present thesis is to offer a finer-grained and more revealing analysis of verb classes than the traditional analysis of four-way voice constructions has had to offer (see Chapters 6 to 9).
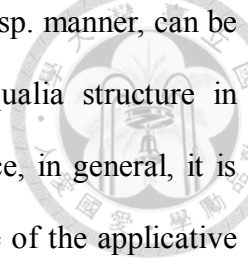
2.3.6 Verb formation processes

In this section I turn to a description of the structure of verbal predicates for the goal that, by means of identifying the semantic components inherently expressed in the verbal bases, I propose that though all of their referents are involved in event schematization, these components usually cannot be realized as a core argument in a non-applicative clause.

As pointed out by Rappaport Hovav and Levin (1998: 108, 2010:24), each base has an ontological categorization, drawn from a fixed set of types including state (e.g., *bloom*, *decay*, and *rust*), result state (e.g., *melt*, *freeze*, and *dry*), stuff (e.g., *hull*, *spray*, and *peel*), container/ spatiotemporal background (e.g., *box*, *channel*, and *pocket*), instrument (e.g., *lock*, *pedal*, and *spear*), cause and manner. Cross-linguistically, among these types, the first two can be further grouped into the **result** type, while the rest can be incorporated into the **manner** type (Behrend 1990; Gentner 1978; Gropen *et al.* 1991). Namely, information specified by the base of a verb is either manner or result. Manner specifies information about how an actor[12] carries out an action, and result, the coming about of a result state. The division applies to the case in Squliq Atayal.

Two implications can be drawn from the following discussion. First, all of the

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[12] The concept, actor, here is a general term, covering not only the performer of an action or the executor of an event, but also the protagonist (theme who performs or is described) in a state.

semantic components described by the base of a verbal predicate, esp. manner, can be regarded as ramifications of the agentive information in the qualia structure in Pustejovsky's (1995) theory of generative lexicon[13]; however, since, in general, it is the role of actor to occupy a core-argument slot, except for the use of the applicative construction to meet the discourse requirements of the speaker, the NP conveying various types of actor-related information often takes an adjunct role introduced by a Loc1 or a Gen2 case marker; thus the examination in this section makes it possible to distinguish adjuncts from arguments of a verb. Briefly, **the NP used to encode the information of the base in question usually cannot be realized as an intrinsic undergoer argument of a verbal predicate**. Second, since the ontological category of a base is associated with the event schema a verbal predicate constructs (Rappaport Hovav and Levin 2010:24), identifying all possible ontological categories of a base and its conceptual-spatial relation to other participants in the corresponding event is an obligatory process for the goal of the present study. Detailed demonstrations on identification of this sort will be provided from Chapters 6 through 9.

Depending on types of the bases of derivatives, verb formation processes can be distinguished into several types. In what follows, I will focus on three types: Type 1, derived verbs with a verbal base, Type 2, derived verbs with an adjective-like verbal base, and Type 3, derived verbs with a nominal base.

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[13] Pustejovsky (1995) developed the theory of the Generative Lexicon for lexical semantic representation. In his theory, it is claimed that many aspects can be represented in the meanings of any lexical item by means of decomposing a lexeme. That is, for Pustejovsky, a lexical semantic representation consists of four parts, i.e., an argument structure, an event structure, a *qualia* structure and a lexical inheritance structure. The agentive information belongs to one type of information conveyed in the *qualia* part and contains information about the factors determining and casual chains involved in the coming about of a result (or an object, which is, of course, affected in a respective event). In accordance with the definition of the agentive information, the information can be analogized as a description of the manner in which the resulting state of an action or event is brought about or a description of the resulting state. In some sense, via the identification of the information on the base of a verbal lexeme, two major verb types, i.e., manner verbs and result verbs, in the world's languages can henceforth be separated. However, worth noticing is, either the concept of manner or the concept of result involves factors activating the 'performance' of an event. 'Performance' implies the concept of 'actor'.

Though the focus is on the information provided by the base, the semantics or functions of affixes attached to the base is also taken account, since the meaning of a derivative is determined by a combination of an affix and its base; moreover, the affix of any derivative may also provide information regarding the notion of manner. The framework for the following description is an adaptation from Lieber (2008) and Plag (1999).

2.3.6.1 Categories and verb-forming affixes

Before proceeding, a definition of the three terms basic to the operation of the morphological processes, namely base, affix, and derivative, is given in order below:

(2.59) a. base: an alternative to root or stem; it refers to the part of a word which
        can either appear alone as an independent unit or host a
        dependent unit; *laugh* as the base as to *laughing*;
    b. affix: a bound morpheme, as *-ing* in *laughing*;
    c. derivative: a combination of a base and at least one affix

Categories for verb-forming affixes in Squliq Atayal, along with their separate meanings, are provided in Table 2.10:

67

Table 2.10: Categories for verb-forming affixes and their meanings in Squliq Atayal

Semantic category of affix	Meaning of semantic category	English Examples	Example(s) of Atayal affixes and corresponding derivatives
1. Causative	Cause to do X	*standardize, velarize*	*p-*: *p-t-zyaw* 'cause to work'; *p-qaniq* 'cause to eat'
2. Inchoative	become X	*oxidize, aerosolize*	*m-*: *m-hebong* 'turn yellow'; *m-hekang* 'turn thin'
3. Locative	Make something go to/into/on X	*syllabify, containerize*	-an: *p-qsya'-an* 'pour water on someone/something '; *qlang-an* 'enter into a state of laziness'; *qhyaq-an* 'have a cold'
4. Performative	Do X	*speechify, anthropologize*	1. t-: *t-zyaw* 'do (a) job'; 2. p-: *p-lukus* 'wear clothes'
5. Productive	Do something to produce X	---	1. *p-*: *p-qwas* 'sing a song'; 2. *s-*: *s-boq* 'moisturize'
6. Resultative	Cause to become X	*quantify, crystalize*	1. s-: *s-qlih* 'husky'; 2. t-: *t-'uciq* 'cause to become stupid'
7. Similative	Do/act/make in the manner of or like X	*personalize, marxize*	*k-*: *k-yubing* 'stingy'; *k-babaw* 'do slightly'

(Note: X refers to the base of a derivative.)
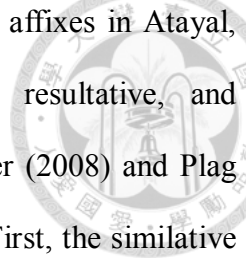
Table 2.12 displays seven of the most common verb-forming affixes in Atayal, i.e., causative, inchoative, locative, performative, productive, resultative, and similative. The categorization is based on the framework of Lieber (2008) and Plag (1999); however, three language-specific points need to be made. First, the similative in English, for example, takes a proper name as its base, although in Squliq Atayal, the base with a simulative affix may be a common noun or a stative veerb. A second point is that in Atayal, the word formation of many verbs may undergo more than one strategy. The form that derives from a combination of an affix and a base may be input to the operation of metaphor or metonymy, as in the case of *k-yubing* 'stingy' (with *yubing* 'sack' as its base), where the image of a deep sack is metaphorically used to refer to a person who is not willing to part with his fortune to help others.

Now let's move on to the three types of verb-forming processes: verb-derived from a verbal base, an adjectival base, and a nominal base.

2.3.6.2 Type 1: Verbal derivatives with a verbal base

A verbal derivative is composed of a verbal base and a marker used to specify the type of a clausal subject. Table 2.11 provides ten examples of verbal derivatives in Squliq Atayal:
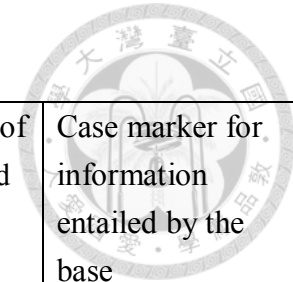
Table 2.11: Verbal roots

Base	Affix	Example of derived verb	Syntacticosemantic category of affix	Semantic category of the derived verb	(Example of) information entailed by the base	Semantic category of information entailed by the base	Case marker for information entailed by the base
1. alax 'give up'	s-	*s-'alax* 'give up sth.'	Marker for theme as subject	Performative	(Hands)	(Hands as default instrument)	--- (Implicit reading)
2. hubing 'cut; slice'	m-	*m-hubing* 'cut; slice'	Agent subject	Performative	Knife	Instrument as manner	Gen2
3. kat 'bite'	\<m\>	*k\<m\>at* 'bite'	Agent subject	Performative	Teeth	Instrument as manner	Gen2
4. laka' 'fly'	m-	*m-laka'* 'fly'	Agent subject	Performative	Sky	Medium as manner	Loc1
5. s-naga' 'wait'	s-	*s-naga'* 'wait'	Agent subject	Performative	Tree branch	Location as manner	Loc1
6. qaniq 'eat'	-un	*niq-un* 'eat'	Patient subject	Performative	1. Mouth 2. Restaurant	1. Implement as manner 2. Location as manner	1. Gen2 2. Loc1
7.qinah	m-	*m-qinah*	Agent subject	Performative	Manner of	Manner	---

70
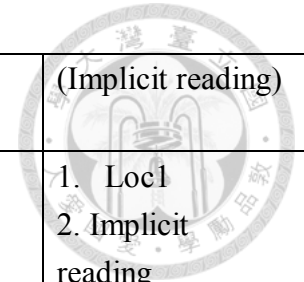
					performing an activity		(Implicit reading)
'run'		'run'					
8. qluy 'flush'	m-	*m-qluy* 'flush'	Theme subject	Performative	1. Water 2. State of being flushed away	1. Medium as manner 2. Result	1. Loc1 2. Implicit reading
9. ruruw 'push'	s-	*s-ruruw* 'push'	Theme subject	Performative	1. Hands 2. A flat land	1. Implement as manner 2. Location as manner	1. Gen2 2. Loc1
10. salit	-an	*slit-an* 'weed'	Goal subject	Performative	hatchet	Implement as manner	Gen2

As shown in Table 2.11, a verbal base must have a voice marker attached to it for it to function as a predicate in a clause. Markers of this sort specify types of clausal subjects. For example, *m-* encodes an actor subject in a clause with a verb like *m-laka'* 'fly' and *s-* encodes a theme subject in a clause with a verb such as *s-'alax*. In a clause, any subject argument plays a central role in the argument structure of the clause.

A verbal base explicitly conveys such semantic information as the way an action is done (e.g., knife as an instrument used for a slicing action encoded by the verb *hubing* 'cut; slice'), but may also either overtly or covertly express the temporal/spatial information about where or when an action is carried out (e.g., river as to *m-qluy* 'flushed away'). Information of this sort takes the role of an adjunct argument, as *soki'* in the derivative *slit-an* 'weed' (2.60), or *qara'* in *s-naga'* 'wait' (2.61). Morphosyntactically, they are separately introduced by a genitive case marker (Gen2) and a locative (1) case marker (Loc1).

(2.60)   (gaga' na' Atayal: 395-396)
          slit-an=naha'   soki'   lru,   baq-un   kwara'   la'.
          weed-an=3PL.GEN   hatchet   FP:and   know-un   all   FP
          'When they weeded (the grass) with hatchets, they all realized (that
          there was a school here before). ' (395-396)

(2.61)   (Sinica Archive: 12-026-d)
          s-naga'   qara'   yutas   laqi'.
          s-wait   branch   grandfather   child
          '(The) grandfather waited for the child at (a) branch.'

It can be easy to observe that in an Atayal clause where its predicate has a verbal base, like (2.60) and (2.61), in addition to the adjunct arguments, there are core arguments, either an actor argument, as in a AV clause, or an actor and an undergoer(or at most

72

two), as in an UV clause. As mentioned, one core argument is realized as the subject. Based on these observations, two points associated with the goal of this study can be made. The first point concerns the morphosyntactic representation of a verb. Core arguments together determine the clause pattern a verbal predicate belongs to, as discussed in the following sections. The second point has to do with verb classification. No matter whether they are realized as a core or an adjunct argument, all specified entities or participants are involved in event schema, that is, their spatial arrangement determines the schema.

Information about the base of other eight verbal derivatives in Table 2.13 can be interpreted and their respective specified event can be realized similarly. It is also worth noting that the semantic category of all affixes in this table belongs to the 'performative' type, since they denote either an actor or an undergoer.

2.3.6.3 Type 2: Verbal derivatives with an adjective-like verbal base

A derived verb consists of either a 'voice'/'force' marker or an affix (like a causativizer or an inchoative marker) and an adjective-like verbal base. The derived verb expresses a resulting state, and that's why the base behaves like an adjective in English. Table 2.12 displays ten examples for the formation processes:

Base	Affix	Derived verb	Syntacticosemantic category of affix	Semantic category of the derived verb	(Example of) information entailed by the base	Semantic category of information entailed by the base	Case marker for information entailed by the base
1. bba' 'swoll-en'	m/b-	mba' 'get swollen'	Theme subject	Inchoative	water	Medium as manner	Gen2
					State of being swollen	State	--- (Implicit reading)
2. bugah 'loose'	t-	t-bugah 'loosen'	Causativizer	Causative	Hoe (as to soils in a field)	Implement as manner	Gen2
					State of being loose	State	--- (Implicit reading)
3. helaw 'quick; energetic'	t-	t-helaw 'enliven'	Causativizer	Causative	Funny action	Means as manner	Gen2
					State of being energetic	State	--- (Implicit reading)
4. qhzyaq 'cold'	-an	qhyaq-an 'have a cold'	Experiencer subject	Locative	Cold temperature	Medium as manner	Gen2
					State of feeling cold	State	--- (Implicit reading)
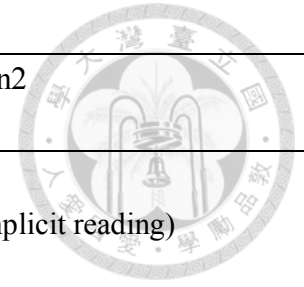
5. qilang	-an	qlang-an	Recipient subject, i.e., the one who receives the disposition of laziness or dullness	locative	Boring day	Cause as manner	Gen2
					State of being lazy	State	--- (Implicit reading)
6.kxal 'ache'	m/k	mxal 'ache'	Experiencer subject	Resultative	Getting hurt	Cause as manner	--- (A cause mentioned in the foregoing utterance)
					State of aching	State	--- (Implicit reading)
7. ktux 'salt'	\<m\>	k\<m\>tux 'salt'	Inchoative marker & Theme subject	Inchoactive	A special brand of salt	Substance as instrument	Gen2
					State of being salt	State	--- (Implicit reading)
8. ngihuy 'sour'	s-	s-ngihuy 'sour'	Causativizer	Resultative	A special kind of plum	Substance as instrument	Gen2
					State of being sour	State	--- (Implicit reading)
9. qlih 'dried'	s-	s-qlih 'husky'	Inchoative marker	Inchoactive	Cold	Cause as manner	Gen2
					State of huskiness	State	--- (Implicit reading)
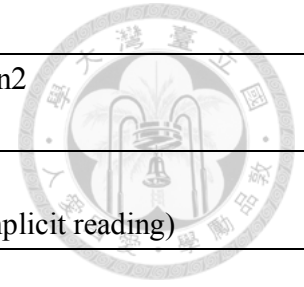
10. qzinut 'poor'	s-	s-qzinut 'abuse'	Patient subject	Resultative; Performative	Extra jobs	Means as manner	Gen2
					State of being abused	State	--- (Implicit reading)

As with derived verbs in Type 1, manner is one of two types of information inferrable from the base, or explicitly expressed in context (e.g., a hoe used to create a loose object in the event encoded by the verb *t-bugah* 'loosen). The other type of semantic information is the concept of result expressed by the base itself (e.g., the state encoded by the stative verb *helaw* 'energetic' that results when people do a funny action encoded by the verb *t-helaw* 'enliven'). Manner is concerned with how an intended result comes about. It may be an instrument employed by an actor, or the way an action is done. The notion of actor may refer to an abstract non-volitional force-executor, such as water that causes something to swell, or a boring day that leaves someone in a lazy state. Thus a direct link between manner and actor can be established. Manner, as stated, is a ramification of the concept of actor, and can be realized at the level of morphosyntax as an adjunct introduced by the case marker Gen2, as in (2.62).

<div style="margin-left:2em">

(2.62) cyux   t-bugah   na' soki'   sa uraw   lga',
        ASP   CAUS-loose   gen hatchet LOC soil   FP:TOP
        kut-an=nya'   nanak   tuling   qba'   la'.
        cut-an=3SG.GEN   self   finger   hand   FP
        'When (the woman) was loosening up the soil loose with (a) hatchet, she cut (her) finger.'

</div>

Sometimes an inanimate argument can also take the role of the actor in an UV clause. For example, in an event specified by the verb *qhzyaq-an* 'have a cold', as in (2.62), it is a non-volitional 'actor', i.e., rain, used to replace an animate actor and then to occupy the syntactic slot of an actor. This results in a dyadic *-an* clause that takes two arguments, one introduced by *qu'* as the subject, while the other is introduced by *na'*. Since the actor is a non-volitional one, the event encoded by *qhzyaq-an* 'have a cold' exhibits low transitivity. This explains why there is a link between the *-an* form of

verbs and low transitivity. Such a link has been pointed out in previous studies on not only Squliq Atayal (Starosta 1998:442) but also other Formosan languages (Tang 2010). Other cases with the *-an* form of verbs of this sort used as the verbal predicate in a clause can be found in *Placement* (II) schema (See Chapter 6). Events there are also exhibits low transitivity.

(2.63)   ini'=nya'   pung-i' ke'   na'   yaya';   nanu'
            NEG=3SG.GEN hear-NEG word   GEN   mother   what
            yasa'   qu',   qhzyaq-an   na'   qwalax   qu'
            that.way   NOM   cold-an   GEN   rain   NOM
            laqi'   qa'.
            child   DEM
            'Because he didn't obey (his) mother's word, the child got a cold as a result of rain.'

In sum, two points regarding the process of verbal derivatives with a stative verbal base can be made. First, the base may directly convey information about the resulting state and, as proposed by Iwata (2006), result is often construed as an "adjunct"; second, manner of an action is a ramification of actor. Other than the two kinds of information, other information from the derived verbs of this type is associated with core arguments, i.e., one actor and one or at most two undergoers.

2.3.6.4 Type 3: Verbal derivatives with a nominal base

The last type of verbal formation strategy is an affix (like a causativizer or an inchoative marker) attached to a nominal base. The base describes either manner or result. Note that, the notion of result here covers effect and product. For example, verbalizing the nominal NP *bes* 'side' can have the effect of staying beside someone, and causativizing qwas 'song' gives us the verb *p-qwas* 'to sing'; *behuy* is 'wind' and

s-behuy produces 'to blow wind'. Table 2.13 displays ten examples for the derivational processes:

Base	Affix	Derived verb	Syntacticosemantic category of affix	Semantic category of the derived verb	(Example of) information entailed by the base	Semantic category of information entailed by the base	Case marker for information entailed by the base
1. behuy 'wind'	s-	s-behuy 'wind'	Inchoative marker	Productive	A canyon or the autumn	Location or time as medium	Loc1
2. bes 'side'	s-	s-bes 'accompany'	Verbalizer	Performative	One's side	A symbolic image as manner and result as well	--- (Implicit reading)
					Hospital	Location as medium	Loc1
3. cira' 'circle'	m-	m-cira' 'become a circle'	Inchoative marker & Theme subject	Inchoative	A wire	Substance as manner	Gen2
					A factory	Location as manner	Loc1
4. mami' 'rice'	t-	t-mami' 'pickle'	Verbalizer	Performative	A special type of rice	Substance as manner	Gen2
					Restaurant	Location as manner	Loc1
5. qsya' 'water'	p- and -an	p-qsya'-an	*P-* as verbalizer; -*an* as a marker to specify goal or location as subject	Performative	Water	Substance as manner	Gen2
					Garden	Location as manner	Loc1
6. qwas 'song'	p-	p-qwas 'sing'	Verbalizer	Productive; Performative	An opera house	Location as manner	Loc1
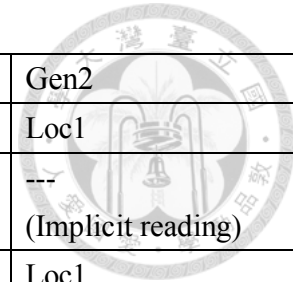
7.	kali'	\<m\>	k\<m\>ali'	Verbalizer	Performative	A net	Implement as manner	Gen2
	'net'					A river	Location as manner	Loc1
8.	tunux	s-	s-tunux	Verbalizer	Similative	One's head	A symbolic image as manner and result as well	--- (Implicit reading)
	'head'		'bother'			Bedroom	Location as manner	Loc1
9.	yubing	k-	k-yubing	Verbalizer	Similative	Long sack hard to touch its inner bottom	A symbolic image as manner and result as well	--- (Implicit reading)
	'sack'		'stingy'					
10.	zyaw	t-	t-zyaw 'do'	Verbalizer	Productive; Performative	farm	Location as manner	Loc1
	'job'							

With regard to the morphosyntactic representation of the derivatives, since as a ramification of actor, which usually occupies a core-argument slot, manner can only be realized as an adjunct argument case-marked by genitive (Gen2), as (2.64) illustrates:
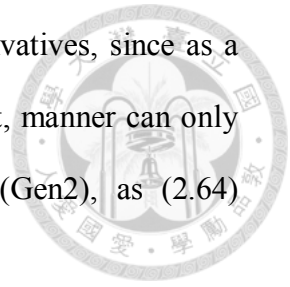
(2.64)

p-qsya'-an=naha'   na'   qsya'   miquy   qasa'   ga',
CAUS-water-an=3PL.GEN GEN   water   reed   that   TOP
musa'   blaq   qu'   m-nbu'   qa'.
ASP   good   NOM   m-sick   DEM
'When they poured (on the patient) with water on that reed, the patient would recover (soon).'

A spatial setting can be subsumbed under the category of manner; as a result, its referring NP is also realized as an adjunct argument, as the location adjunct *slaq* in (2.65):

(2.65)   t-zyaw=ta'   sa   slaq   suxan!
         do-job(.IMP)=1Pl.NOM   LOC paddy.field   tomorrow
         'Let's work in the field tomorrow!'

In (2.65), *slaq* functions as a spatial setting for the actor to carry out an intended action or event and the NP is introduced by a locative case marker (Loc1).

Likewise, result is the other type of information entailed by a base, and its corresponding NP is an adjuct. It is usually left unspecified in a clause; however, a result phrase can be specified as its referent, not a generic one, is in the same category as the intrinsic undergoer of a derived verb. This case is only restricted to the situation in which product is specified for the context requirement, as illustrated in (2.66):

(2.66)   (gaga' na' Atayal: 129-130)

nanu'   hya'   m-qwas   sayun   no   kane   ma'   ru,
what   3SG.NEU   m-song   PN   GEN   clock   QUOT   and

m-qwas   qwas   gipun   ga'.
m-sing   song   Japan   FP

'And then, he sang the song, Sayun no kane, (which is a) Japanese song.'

In (2.67), the NP *sayun no kane* is in the same category as *qwas* 'song', the base of the verbal predicate *m-qwas* 'sing'. But since it is the undergoer of *m-qwas*, the NP is required as an E argument in the structure of the verb. If a case marker were present, it would be a locative case marker (Loc2); but the marker is absent here.

The discussion in this section can be summarized in terms of the following three points:

(2.67)

a.   In Squliq Atayal, information conveyed by the base of a verbal predicate can be classified to either manner or the result category. Since manner can be realized as a ramification of actor, and meanwhile, it is usually the actor taking the role of core argument, manner is taken as an argument adjunct introduced by Gen2 or Loc1. Result can also be realized as an adjunct, so it usually doesn't occupy any syntactic slot in a clause unless it is in the same category as the undegoer in a transitive event and needs to be specified, as in (2.63). As a result, the examination in this section provides us a way to distinguish adjunct from core arguments.

b.   Following (i). Since the NP used to encode the information of the base usually cannot be realized as an intrinsic undergoer argument of a verbal predicate, the NP plays no role in determining verb types or verb classification.

c.   Though the information doesn't determine the class of a verb, it is central to the job of defining define an event schema that a verb constructs, and it is an obligatory component in terms of frame semantics.

2.3.7 Atayal verbal clause patterns

With regard to the Atayal verbal clause patterns, Liao (2004) touches upon the issue and identifies three major clause patterns as shown below:

Table 2.14: Verbal clause patterns in Squliq Atayal (slightly adapted from Table 4.5 in Liao (2004:335))[14]

Pattern 1	**monadic** *(-)m-*V **clause** Intr.			N Nom agent/theme
Pattern 2	**Dyadic** *(-)m-*V **clause** Intr.? Tr?	(*na'/nqu'/sa/squ'*) Gen?/Lcv?/Acc?	N	N Nom agent
Pattern 3A	**Dyadic** V-un **clause** Intr.? Tr?	(*na'/nqu'*) Gen agent	N	N Nom theme
Pattern 3B	**Dyadic** V-*an* **clause** Intr.? Tr?	(*na'/nqu'*) Gen agent	N	N Nom location
Pattern 3C	**Dyadic** *s-*V **clause** Intr.? Tr?	(*na'/nqu'*) Gen agent	N	N Nom instrument/beneficiary

In Liao's (*ibid.*), she identifies all of the Atayal clauses in terms of the patterns in Table 2.14, instead of specifying the voice types of verbs in clauses. I subscribe to her approach, for basically the following reason:

(2.68) In most cases, the subjects specified by two different "Undergoer" voice forms of a verb are in the same semantic-role category. Moreover, most verbs take only one intrinsic undergoer whose category is defined at the level of spatio-conceptual level, but not in terms of verbs' surface form. Instead, using *(-)m-, -un, -an* and *s-* as a cover term to specify an agent, a

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[14] The parts in bold are my additions based on Liao's original text. For more details on the table, please see Liao (2004:334-338).

patient, a location and an instrument or a beneficiary subject may obscure the innate, spatio-conceptual relationship between a verb and its intrinsic undergoer in most cases.
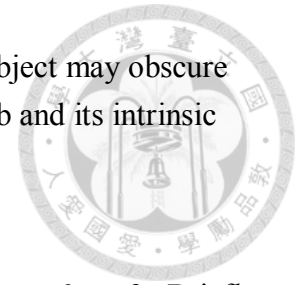
A more detailed elaboration on (2.68) will be provided in Chapter 6 to 9. Briefly speaking, naming *-un* in the verb *khang-un* 'look after' as patient voice marker (PV) or naming *m-* in the verb *m-qluy* '(st. or sb.) flushed away' as agent voice marker (AV) fails to identify the tight relation between the voice form and the semantic category of the subject. However, a straightforward relation obtains only in two types of applicative undergoer voice constructions, i.e., the *–an* applicative voice construction for identifying a location subject and the *s-* applicative voice construction for identifying an instrument or a beneficiary subject. Precisely speaking, relation as such is not built at the level of spatio-conceptual level, but is an extended, generalized representation based on the original, conceptual use of verbs in the *-an* or the *s-* verb class. In the following discussion, I will adopt Liao's proposal to display verbal clause patterns, but I will also make a slight modification of her proposal. The modifications are motivated by the following considerations:

(2.69)
a. For a few verbs, two patterns may be distinguished respectively for triadic *–an* clauses and triadic *s-* clauses.
b. The thematic roles instrument/benefactive should be removed from the table and replaced with conveyed/transported theme.
c. Liao didn't make a distinction between Gen1 and Gen2.

Via Point (2.69a), the need to distinguish pure from applicative undergoer nominative-marked NP is obligatory; point (2.69b) implies that the clause patterns for verbs should be lexically-specific. This is also the starting point about the question of

voice marking system in the language.

A modified version for verbal clause patterns is shown below:

Table 2.15: Argument profiles for clause patterns in Squliq Atayal

	CLAUSE PATTERN	CORE ARGUMENT (case assignment; category of thematic role)			
Pattern 1.	Monadic (*m*-)V intransitive	S (nominative; actor/patient/ theme/ affectee/ content goal/location /recipient/ experience/ conveyed theme)			
Pattern 2.	Dyadic (-)*m*-V intransitive	S (nominative; actor)	E (locative; non-actor like patient/theme/affectee/content goal/location/recipient/ experience/conveyed theme)		
Pattern 3.	Triadic (-)*m*-V transitive	S (nominative)	E_O[15] (locative; conveyed theme)	E_I (locative; location/ recipient)	
Pattern 4a.	Dyadic V-*an* transitive	A (genitive)			O (nominative; goal/location/ recipient/ experiencer)
Pattern 4a'.	Dyadic V-*an* applicative transitive	A (genitive)			O (nominative; applicative

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[15] E_I stands for an indirect object in an EIC, while E_O means a direct object in the same clause type.

					location)
Pattern 4b.	Dyadic V-*un* transitive	A (genitive)			O (nominative; patient/theme/ Affectee/content)
Pattern 4c.	Dyadic *s*-V transitive	A (genitive)			O (nominative; conveyed theme)
Pattern 4c'.	Dyadic *s*-V applicative transitive	A (genitive)			O (nominative; applicative instrument, beneficiary, or cause)
Pattern 5a.	Triadic V-*an* transitive	A (genitive)		E$_O$ (locative; conveyed theme)	O (nominative; goal/location/ recipient)
Pattern 5b.	Triadic V-*un* transitive	A (genitive)		E (locative; conveyed theme)	O (nominative; goal/location/ recipient)
Pattern 5c.	Triadic *s*-V transitive	A (genitive)	E$_I$ (locative; location/recipient)		O (nominative; conveyed theme)
Pattern 5c'.	Triadic *s*-V applicative transitive	A (genitive)	E (locative; patient/theme/ affectee/content/ goal/location/ recipient/ experience/ conveyed theme)		O (nominative; applicative instrument, beneficiary, or cause)

These patterns are exemplified below:

87
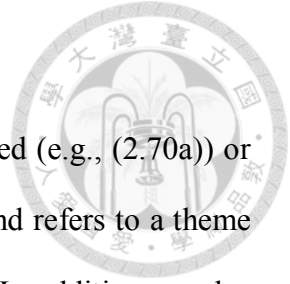
Pattern 1. Monadic (*m*-)V intransitive

In Pattern 1, the lexical verb is either morphologically unmarked (e.g., (2.70a)) or is prefixed with *m*- (e.g., (2.70b)). The nominative subject is an S and refers to a theme (2.70a), an actor (2.70b) and (2.70d), a patient (2.70c) and so on. In addition, as also pointed out in Liao (2004:336), the optional occurrence of an adjunct NP is acceptable, as illustrated in (2.70d).

(2.70) **Pattern 1. Monadic (*m*-)V intransitive**
a. (Sinica Archive: 05-010-a)

    khi'   yal   rwa'   qu' nquy.

    thin   very   FP   NOM pipe

    'The pipe was thin, indeed.'

b. (Sinica Archive: 03-002-a)

    a   **m-usa'**   qu'   tsyaqung.

    FIL   m-go   NOM   crow

    'The crow set forth (first).'

c. (gaga' na' Atayal: 435-436)

    wal   **m-qluy**   la', qu'   sayun   qasa'.

    ASP   m-flush.away   FP NOM   PN   that

    'That (person), Sayun, was flushed away.'

d. (Sinica Archive: 17-005-b)

    m-'abi'   tuqiy   ay.

    m-sleep   road   FP

    '(They) slept (overnight) on the road.'

Pattern 2. Dyadic *(-)m*-V intransitive

Pattern 2 is comprised of three components, namely, a lexical verb marked with a dyadic *(-)m*- affix, an nominative actor argument, and a Loc2 non-actor argument. The

Loc2 non-actor argument is a subcategorized undergoer determined by the semantics of the verb in the pattern, e.g., *katan* as the required undergoer of *maniq* in (2.71a), *trakis* as the required undergoer of *s<m>hu'* in (2.71b), or *a iyat=ta' balay p-qaniq* as the required undergoer of *m-kal* in (2.71c). Besides, the two arguments in Pattern 2 are in a core grammatical relation, i.e., nominative argument in an S role, and Loc2 argument in an E role. The case marker used to introduce the Loc2 E argument must be *squ'/sa*.

(2.71) **Pattern 2. Dyadic *(-)m*-V intransitive**

a. (Sinica Archive: 15-002-c)

maniq	katan	ka	siliq	lga'.
m.eat	poubuzi	FIL	omen.bird	FP:FP

'The omen bird ate poubuzi (i.e., a kind of tree-fruit).'

b. (Sinica Archive: 20-002-a)

pzit	qani'	hya'	ga',	qu'	raral	ka
sparrow	this	3SG.NEU	TOP	NOM	in.the.past	LIG

nkis=ta'	raral		ga',	m-usa'	qmayah	mga',
old.man=1PI.GEN	in.the.past		TOP	m-go	field	QUOT:TOP

iy,	**s<m>hu'**	trakis	ru	'sa-n=naha'	phapuy.
FIL	<m>pound.rice	millet	and	go-an=3PL.GEN	cook

'Concerning the sparrow, when our ancestors went to the field, they pounded rice and cooked there.'

c. (Sinica Archive: 14-003-b)

"a	iyat=ta'	balay	p-qaniq"	maha'	**m-kal**	kwara'
FIL	NEG=1PI.GEN	true	FUT-eat	QUOT	m-speak	all

lmga'.
FP:QUOT:FP

'All said, "We have nothing to eat."'

Pattern 3. Triadic (-)*m*-V intransitive

In Pattern 3, the lexical verb takes three obligatory arguments, i.e., an actor and

two undergoers. The actor is the subject in the clause and is marked with nominative case; the two undergoers, like the undergoer in Pattern 2, are both marked Loc2 case, with *squ'/sa* as the case marker if present. As illustrated in (2.72), the actor is the 1st person inclusive plural nominative bound pronoun *=ta'* and the two undergoers refer to the recipient 'ancestral spirit(s)' and the conveyed theme 'rice' expressed by a headless relative clause.

(2.72) **Pattern 3. Triadic (-)*m*-V intransitive** (Sinica Archive: 09-006-a)

nanu'   yan   ke'   nqu' soni'   ka   **miq**=ta'
what   be.like word   GEN today   LIG m.give=1PI.NOM
utux   ga', cipuq.
ancestral.spirit TOP small
'What we have talked up till now (can be reinterpreted as follows:) we gave the ancestral spirit a bit (of rice).'

Pattern 4a. Dyadic V-*an* transitive

Pattern 4a refers to clauses that are comprised of a lexical verb that takes the dyadic *-an* form and two core arguments. One argument refers to an actor (e.g., *=naha'* (2.73b) and an unspecified actor (2.73c)/(2.73d)/(2.73f)) or an instrument-like entity associated with the notion of agency for the speaker to specify a location (e.g., *ngbang* (2.73a)) or an instrument for the actor to accomplish his action (*qara' tqzing* (2.73e)). The other argument is an undergoer, which covers a variety of thematic roles like location (e.g., *qutux ka qhuniq bsyal qasa'* (2.73a) and *htgan na' wagi'* (2.73g)), goal (e.g., *siliq qani'* (2.73b), patient (e.g., *bzyok* (2.73d), *gili'* (2.73c) and *yamil* (2.73e)), and *percept* (e.g., *blihun* (2.73f)); these roles can be generalized as a location.

(2.73) **Pattern 4a. Dyadic V-*an* transitive**

a. (Sinica Archive: 12-023-g)

cyux	**ki'-an**	ngbang	ka	qutux	ka	qhuniq
EXT.REM	exist-an	concave	LIG	one	LIG	tree

bsyal	qasa'
tree.name	that

'There was a concave on the Bsyal tree.'

b. (Sinica Archive: 03-007-e, 03-008-a)

ana'=su		m-usa'	iy	m-sbu'…	nanu'	yasa'
no.matter=2SG.NOM		m-go	FIL	m-shoot.fish	what	that.way

qu',	**spng-an**=naha'	balay	qu'	a	siliq
NOM	measure-an=3PL.GEN	true	NOM	FIL	omen.bird

qani'.
this

'No matter whether you went to shoot (a fish)…Therefore, they did act according to the omen bird.'

c. (Sinica Archive: 05-034-c, 05-034-d)

ru	abaw	na(sa'),	**yan**	na'	gili'	ga'.	skan-an	ru…
and	leaf	that.way	be.like	FIL	fern	FP	chew-an	and

'Its leaf looks like the fern's. After (people) chewed the fern-leaf, …'

d. (Sinica Archive: 05-005-a, 05-005-b)

bzyok	spy-un=naha'	ga',	bzyok.	maha'	**ska-n**	ga',
pig	dream-un=3PL.GEN	TOP	pig	say	halve-an	TOP

ska-n,	qu'	spi'=naha'	ga'.
halve-an	NOM	dream=3PL.GEN	FP

'If it was pig that (they) had dreamed about, a pig (had to be sacrificed). If their dream said (the sacrifice) to be halved, then it had to be halved.'

e. (Sinica Archive: 15-011-f)

a	nyux	iy	**hbot-an**	nqu' qara'	tqzing
FIL	PROG.IMM	FIL	lacerate-an	GEN branch	tree.stump

uzi'	ga',	yamil	lrwa'.
also	FP	shoe	FP:FP

'Shoes were lacerated by tree-branches, i.e., the tree stumps.'

f. (Sinica Archive: 01-008-a)

kta-n	mga',	nyux	iy	**kta-n**	tsikay	blihun
see-an	QUOT:TOP	EXT.IMM	FIL	see-an	a.bit	door

ma'	wa.
QUOT	FP

'On seeing, (the ass) just took a look at the two sides of the door.'

g. (Ogawa and Asai (1935:42 (20); glosses and transcription mine)

thk-an=naha'	balay	htg-an	na'	wagi'.
arrive-an=3PL.GEN	true	come.out-an	GEN	sun

'They arrived at the place where the sun rises.'

Pattern 4a'. Dyadic V-*an* applicative transitive

Pattern 4a' refers to the Dyadic V-*an* transitive pattern. Like Pattern 4a, the lexical verb in Pattern 4a is a dyadic verb in -*an* form. However, the form is an applicative form. This can be attested from the origin of the clausal subject. The entity or participant specified by the subject is not subcategorized for by the verb. In other words, the subject is an applicative argument and it is used to convey information where (or when) an action or event takes place.

However, it is important to note that, in natural data, except for being the subject in an equational sentence (e.g., *te llaw* (2.74c)) or serving as a NP whose formation is via nominalization (e.g., *qnx-an* (2.74d)), I have never seen a locative applicative nominal argument that serves as the subject in a verbal clause. If it appears as the subject in a verbal clause, the structure must be an elicited sentence, as in (2.74a) and (2.74b); but also note that, the reading of a locative equational sentence can still obtain, as in (2.74b).

(2.74) **Pattern 4a'. Dyadic V-*an* applicative transitive**

a. wal=nya' **niq-an** qu' n~niq-an polowan.
ASP=3SG.GEN eat-an NOM RED~eat-an PCN
'He has eaten at the restaurant in Polowan (before).'

b. Taoshang Atayal (Chen (2007:79 (40a)))
wal **hqil-an** na' yaba'=nya' qu' ngasal qasa'.
ASP die-an GEN father=3SG.GEN NOM house that
'That house is where Tali's father died.'

c. (Sinica Archive: 02-004-b)
te llaw ga', **pzi'-an** nqu' ka a mknazi'.
LOC right TOP play-an GEN FIL FIL Mknazi
'On the right side, it was the hunting place of the Mkanzi's clan.'

d. (Sinica Archive: 11-027-a)
baha' h<m>swa' qani' yan qu' **p-spng-an**
how.come <m>why this be.like NOM CAU-measure-an
ka qnx-an sraral ru rwa'.
LIG live-an LOC:in.the.past and FP

'The principle of life was like this in the past.'

Pattern 4b. Dyadic V-*un* transitive

Clauses in Pattern 4b consist of a dyadic -*un* transitive verb. Two core arguments here are an Actor and an undergoer, such as the patient argument *kwara' p<in>muya'=mamu* in (2.75a), the content argument (i.e., dream which is unspecified in (2.75b)), and the theme argument *btunux* in (2.75c) and *t<n>inun=su* in (2.75d). Both an actor and an undergoer are two intrinsic arguments of the dyadic transitive verb in the pattern.

(2.75) **Pattern 4b. Dyadic V-*un* transitive**

a. (Sinica Archive: 07-006-a)

"iy	kwara'	qu'	p<in>muya'=mamu		ngahi'
FIL	all	NOM	<PST.OBJNMZ>plant=2PL.GEN		sweet.potato

qa'	ga',	**niq-un**=maku'	ay."
DEM	TOP	eat-PV=1SG.GEN	EP

'As for those sweet potatoes you have planted, I will eat them.'

b. (Sinica Archive: 05-014-e)

ana'		m<in>yangi'		ru,
no.matter		m<PST>suffer.from.a.lingering.disease		and

ana'	balay	iy	m<in>hiking	ka
no.matter	true	FIL	m<PST>emaciated	LIG

a	si'	sulu'	huqil	ga',	spy-un=naha'	ru
FIL	just	almost	die	TOP	dream-un=3PL.GEN	and

qes-un=naha'	lga',	blaq	balay	la'.
sacrifice-un=3PL.GEN	FP:TOP	good	true	FP

'No matter whether he was bedridden or he was so emaciated that he would die soon, people dreamt (about sacrifices) and they made the sacrifice and his illness would heal.'

c. (Sinica Archive: 03-003-c)

wal=nya'	**truzy-un**	qu'	btunux.
ASP=3SG.GEN	turn.over-un	NOM	stone

'It set the stone into motion.'

d. (Sinica Archive: 05-017-a)

mutu'=naha'	kyal-un	maha'	o,	"wal	yan
then=3PL.GEN	speak-un	QUOT	FIL	ASP	be.like

nasa'	(b)nkis=su	ru	tninun=su	ga',
that.way	old.man=2SG.GEN	and	soul=2SG.GEN	TOP

wal=naha'	**ras-un**"	ma'.
ASP=3PL.GEN	bring-un	QUOT

'They would tell (the patient), "Your ancestors have done something like that. So, they took your soul away."'

Pattern 4c. Dyadic *s*-V transitive

94

Pattern 4c consists of a dyadic *s-* transitive verb and two subcategorized arguments, an Actor and an undergoer construed as a conveyed theme. As in (2.76a), *=naha'* '3rd plural genitive pronoun' and *tunux* 'head' are the two obligatory arguments of the verb *s-hngu'*. Likewise, *=naha'* '3rd plural genitive pronoun' and *pinqiring=naha'* 'the married daughter's dowry' are the two arguments of *s-buling*. Note that the remaining argument nominal in (2.76a) and (2.76b), i.e., *qsya'* and *tuqiy*, are entailments of the respective verbs, and they can be highlighted as clausal subject only via an applicative locative clause.

(2.76) **Pattern 4c. Dyadic *s*-V transitive**

a. (Sinica Archive: 05-023-b; repeated from (2.9c))
   s-hngu'=naha'   sa   qsya'   qasa'   tunux   rwa'.
   s-dip.in.water=3PL.GEN   LOC   water   that   head   FP
   'They dipped (the patient's) head into the water.'

b. (Sinica Archive: 17-014-c)
   wal=naha'   **s-buling**   iy   tuqiy   ka
   ASP=3PL.GEN   s-throw.away   FIL   road   LIG
   pinqiring=naha'   qasa'   ga', ka
   dowry.of.daughter.got.married=3PL.GEN   that   FP   LIG
   ina'   qa'.
   daughter.in.law   DEM
   'They threw the married daughter's (dowry), i.e., that daughter-in-law's on the road.'

Pattern 4c'. Dyadic s-V applicative transitive

In Pattern 4c', the crucial components include a dyadic main verb in a s- form and two core arguments, i.e., an actor and either a cause, a beneficiary, or an instrument. However, since the *s-* prefix is an applicative marker, the subject of an *s*-V applicative clause is an applicative argument. This is the point used to distinguish from Pattern 4c.

(2.77) illustrates the pattern.

(2.77) **Pattern 4c'. Dyadic s-V applicative transitive**

(Sinica Archive: 13-007-b, 13-008-a, 13-008-b)

ini'=nya'	suq-i'	qutux	ryax	matas	a	kneril	hya'
NEG=3SG.GEN	finish-i	one	day	tattoo.m	FIL	female	3SG.NEU

ma'.	baha'	m-naga'	lgiy	so-n	qani'
QUOT	how.come	m-wait	FP:because	say.thus-un	this

ru,	so-n	qani'	lpi.	bzinah	ga',
and	say.thus-un	this	FP:FP	the.other.side	TOP

s-hngaw=naha'	hma'.
s-rest=3PL.GEN	FP:QUOT

'Tattoos for girls wouldn't be finished within one day. They had to wait for a while because it was just like this. They would take a rest for (the reason).'

Pattern 5a. Triadic V-*an* transitive

In Pattern 5a, the crucial components include a triadic main verb in an –*an* form and three core arguments, i.e., an actor, a conveyed content, and a recipient. The recipient argument is the subject. (2.78) illustrates the pattern.

(2.78) **Pattern 5a. Triadic V-*an* transitive** (Sinica Archive: 05-028-b)

maki'	pila'=naha'	ga',	**biq-an**=naha'.
m.exist	money=3PL.GEN	TOP	give-an=3PL.GEN

'If they had money, they would pay with it.'

Pattern 5b. Triadic V-*un* transitive

Patten 5b takes a lexical -*un* verb as its main verb. As in Pattern 5a, it takes an actor, a conveyed content, and a recipient. But it differs from Pattern 5a in focusing on the recipient as the clausal subject. (2.79) is an example of the pattern.

96

(2.79) **Pattern 5b. Triadic V-*un* transitive**

(Sinica Archive: 12-005-c)

| **kyal-un**=nya' | qu' | laqi' | qasa' | ma', | "s-ay |
| speak-un=3SG.GEN | NOM | child | that | QUOT | go-ay |

| balay | iy | p-hul | qutux | rahaw | ka | cyux |
| true | FIL | CAUS-bind | one | trap | LIG | exist.REM |

| bu' | balay | b-bu' | a, | a, | bu' | balay | a | bsyal |
| TOP | true | red-top | FIL | FIL | top | true | FIL | tree.name |

mga'."

QUOT:FP

'He told the child, "Go to set up the trap at the top of the Bsyal tree."'

Pattern 5c. Triadic *s*-V transitive

Pattern 5c is the triadic *s*-V transitive pattern. Verbs in Pattern 5c refer to those in a tradic *s*- form. And, also like Patterns 5a and 5b, verbs take three core arguments in three different categories. Thus, what is distinct about the pattern is the conveyed theme as the subject. (2.80) is an example.

(2.80) **Pattern 5c. Triadic *s*-V transitive**

a. (Sinica Archive: 09-006-b, 09-006-c)

| hupa' | s-biq | lga', | nyux=su | cqiri' | lma' |
| big | s-give | FP:TOP | PROG.IMM=2SG.NOM | tease | FP:QUOT |

| utux | ma'. | a | nanu" | tsipuq | **s-biq**=su |
| ancestral.spirit | QUOT | FIL | what | small | s-give=2SG.GEN |

| qasa' | lga', | hupa'=naha' | la'. |
| that | FP:TOP | big=3PL.GEN | FP |

'Because, if you gave him a lot, the ancestral spirit would think that you were teasing (him). Thought you gave (them) little, their (rice) would become a lot.'

97

b. (Sinica Archive: 03-010-a, 03-010-b)

nanu'	yasa'	qu',	ana'	kryax	qa'	ga',	qu'
what	that.way	NOM	no.matter	everyday		DEM TOP	NOM

tayal	qani'	ga',	nanu'	a	p-gluw=naha'		ke'
Atayal	this	TOP	what	FIL	FUT-together=3PL.GEN		word

ma'.	a	si'	ka	a	**s-paqut**	pali'	siliq
quot	FIL	must	FIL	FIL	s-interrogate	wing	omen.bird

so-n=naha'.
say.thus-un=3PL.GEN

'As for the omen bird, we, Atayal people, must follow its word in our daily life. (Our ancestors used to) say that everyone should ask the omen bird's wings.'

Pattern 5c'. Triadic *s*-V applicative transitive

In Pattern 5b', the lexical verb is a triadic *s*- verb which takes three core arguments, i.e., an actor, a recipient, and a conveyed content, with the content as the subject. However, since the *s*- prefix is an applicative marker, its subject is an applicative argument. This is the point used to distinguish from Pattern 5c.

(2.81) **Pattern 5c': Triadic *s*-V applicative transitive**
a. (Sinica Archive: 12-025-b, 12-025-c)

s-'agal=nya'	qwa…	nanu'	su	la',	qwahi'.	qzy-an=nya'
s-take=3SG.GEN	QWA	what	SU	FP	vine	tie-an=3SG.GEN

ru.
and

'He made use of vines. He tied himself (with vines).'

b. (Sinica Archive: 08-003-b, 08-003-c)

kya	iy	maha'	nanu'	laqi'	qasa'	ga',
probably	FIL	QUOT	what	child	that	TOP

(g)al-un=nya'	qu'	sulu'	qasa'	ma'.
take-un=3SG.GEN	NOM	stalk	that	QUOT

s-'pux=nya'	babaw=nya'	mga'.
s-press=3SG.GEN	above=3SG.GEN	QUOT:FP

'As for the child, she, herself, took the stalk (of pigeon peas). She pressed on

the top of her body (with the stalks of pigeon peas).'

c. (Sinica Archive: 03-004-a)

nanu'	yasa'	qu',	s-siliq	qani'	hya'	ga',
what	that.way	NOM	RED-omen.bird	this	3SG.NEU	TOP

m-usa'=su	s<m>zye'	ga',	**s-kita'**=naha'	siliq	uzi'.
m-go=2SG.NOM	<m>propose	top	s-see=3PL.GEN	omen.bird	also

'So, as for the omen bird, it is the one you should observe it first (to decide whether to go or not to go) before you go to propose.'

Thus far, I have enumerated examples for each pattern in Table 2.18. Table 2.18 is not only a summary of the "sketch" of morphosyntax in Squliq Atayal, but also the morphosyntactic basis for my proposal in the present study. In short, the patterns in this table mean a lot to the syntax of the language.

CHAPTER 3

THE MAIN ISSUES ADDRESSED IN THIS STUDY

3.1 Introduction

In this chapter, by means of reviewing the literature, I would like to point out the main issues to be addressed in the present study. It will be found that the main issues are activated by a complex reality: Not all three UV forms of a verb, i.e., *-un*, *-an*, and *s-*, fill their respective slots in a so-called full-fledged four-way voice system via *equal* processing. There are four ways for a verb's UV form filling a respective UV slot in the voice system of Squliq Atayal. First, it is the form which is used to encode an intrinsic undergoer of a verb as the subject in neutral conditions to fill one of UV form slots. Second, applicativization is one device for most verbs to have their peripheral argument(s) (i.e., a locative or an instrumental or a beneficiary argument) promoted to the subject of a clause, namely, there must be at least one UV slot left for an applicative form in the four-way system. Third, different UV forms also induce various TAM readings, for instance, the *-un* form of *pung* 'hear' is used in an irrealis event, while its *-an* form in a realis event. Last, for the *-an* form of some verbs like *qaniq* 'eat', *nbuw* 'drink', *tahuq* 'cook', etc., a part-whole reading is given to the subject in order to meet the requirement of context, but the subject is not identical to the verb's intrinsic undergoer in category. Based on the four conditions for the use of a UV form, I propose three arguments concerning the goal of the present study: (i) some kind of mapping between a verb's intrinsic undergoer and one of its UV forms (i.e., a default UV form) likely exists in the verbal lexicon of Squliq Atayal (see Section 3.2); (ii) following (i), in pursuit of a systematic voice patterning for verbs in this language, distinguishing the intrinsic undergoer of any verb from its applicative undergoer(s) is a prerequisite (see

Section 3.4 & Section 3.5); (iii) a competition between the *-un* and the *-an* form for the specification of a verb's undergoer can be observed, and that implies that verbs in Squliq Atayal can be categorized into at least two classes (Section 3.6). In the following discussions, I will take it as a given that the voice system is not a full-fledged one for most verbs in the language.

3.2 A query about a full-fledged four-way voice marking system

It is widely known that many Philippine-type languages make a four-way distinction in subject, also known as 'focus' or 'topic' in the literature; it is also often claimed that the semantic role of the subject is marked by the affixes on the verb (French 1988). Thus, in Squliq Atayal, *m(-)/-m-/ø* (called AV or AF) signals the actor of an action as the subject, *-un* (PV or PF) the patient of an action as the subject, *-an* (LV or LF) the location of an action as the subject, and *s-* (CV or RF, with IV or IF and BV or BF included) the instrument or beneficiary of an action as the subject. They are illustrated in (3.1) ((Liu 2004:27 (29)-(33)), original transcription, gloss, and translation):

(3.1)
a. m-aniq   qulih   qu'   tali'
    AV-eat   fish   NOM   Tali
    'Tali' eats fish.'

b. niq-un   na' tali'   qu'   qulih   qasa
    eat-PV   OBL Tali   NOM   fish   that
    'That fish is eaten by Tali.'

c. niq-an   na' tali' qulih   qu'   ngasal   qasa
    eat-LV   OBL Tali fish   NOM   house   that
    'That house is the place where Tali eats [ate] fish.'

d. s-qaniq na' tali' qulih qu' qway
    IV-eat OBL Tali fish NOM chopsticks
    'The chopsticks were used by Tali to eat fish.'

e. s-qaniq na' tali' qulih qu' sayun.
    IV-eat OBL Tali fish NOM Sayun
    'Sayun is the person for whom Tali ate fish.'

In (3.1a), the subject *tali'* 'Tali'' is the actor of the event associated with the verb affixed with *m-*, i.e., *maniq* 'eat'. In (3.1b), the subject *qulih qasa* (or *qulih qasa'*) 'that fish' is assigned with the role of patient, and the main verb is the PV form of *qaniq* 'eat', i.e., *niq-un*. In (3.1c), *ngasal qasa* (or *ngasal qasa'*) 'that house' denotes a location, which is selected as the subject of the clause by the LV verb *niq-an* 'eat'. In (3.1d), the subject *qway* 'chopsticks' is an instrument normal, and the main verb is prefixed with *s-*. In (3.1e), the subject Sayun is the beneficiary, and the *s-* form of *qaniq* 'eat', i.e., *s-qaniq* 'eat', is used.

The four-way system for subject choice is also found in other Philippine-type languages, but different variants for each voice/focus marker are used in different languages. (3.2) and (3.3) respectively illustrate the use for four voices/focuses in Paiwan and Tagalog.

(3.2)
a. (Wouk and Ross 2002:20 (1d), original transcription, gloss and translation)
    t<əm>kəl a qała
    <AV>drink SPEC stranger
    'the stranger will drink (something)'

b. (Wouk and Ross 2002:20 (1b), original transcription, gloss and translation)
    təkəl-ən a vaua
    drink-PV SEPC wine
    'the wine will be drunk' ('s/he/they will drink the wine')

c. (Wouk and Ross 2002:20 (1c), original transcription, gloss and translation)

təkəl-an   a   kaksan

drink-LV   SPEC   kitchen

'the kitchen will be drunk in' ('s/he/they will drink it/them in the kitchen')

d. (Wouk and Ross 2002:20 (1a), original transcription, gloss and translation)

si-təkəl   a   kupu

CV-drink   SPEC   cup

'the cup will be drunk with' ('s/he/they will drink in/them from a cup')

In (3.2a), the subject of the verb taking the AV infix <əm> is an actor; in (3.2b), the PV suffix -ən is to signal a patient subject; in (3.2c), the LV suffix –an is to specify a location subject; in (3.2d), the subject is an instrument, and the main verb is marked with the instrumental voice marker s-.

(3.3)

a.   (Schachter 1976:494-495, original transcription, gloss and translation)

Mag-alis   ang   babae   ng   bigas   sa   sako

AV-take.out   SPEC   woman NPIV   rice   LOC   sack

para sa   bata

for LOC child

'The woman will take some rice out of a/the sack for a/the child'

b.   (Schachter 1976:494-495, original transcription, gloss and translation)

A-alis-in   ng babae   ang   bigas   sa   sako

DUR-take.out-PV GEN woman SPEC   rice   LOC   sack

para sa   bata

for LOC   child

'A/the woman will take the rice out of a/the sack for a/the child'

c.   (Schachter 1976:494-495, original transcription, gloss and translation)

A-alis-an   ng   babae   ng   bigas   ang

DUR-take.out-LV GEN   woman NPIV   rice   SPEC

sako para   sa   bata

sack for   LOC child

103

'A/the woman will take the rice out of the sack for a/the child'

d. (Schachter 1976:494-495, original transcription, gloss and translation)

Ipag-alis   ng   babae   ng   bigas   sa   sako
CV-take.out   GEN   woman   NPIV   rice   LOC   sack

ang   bata
SPEC   child

'A/the woman will take the rice out of a/the sack for the child'

Likewise, in Tagalog, the subject in (3.3a) taking the AV prefix *mag-* is an actor, in (3.3b) taking the PV suffix *-in* is a patient, in (3.3c) taking the LV suffix *-an* is a location, and in (3.3d) taking the CV prefix *ipag-* is a circumstantial participant (for the case here, a beneficiary).

Based on (3.1) to (3.3), a summary of the four-way voice marking system of the aforementioned languages can be displayed below:

Table 3.1: Four-way voice systems of three Philippine-type languages

Voice type ⟍ Language	AV	PV	LV	CV
Squliq	*m-*	*-un*	*-an*	*s-*
Paiwan	*<əm>*	*-ən*	*-an*	*si-*
Tagalog	*mag-*	*-in*	*-an*	*ipag-*
Thematic roles of subject	Actor	Patient	Location	Instrument or beneficiary

However, not every verb in Philippine-type languages exhibits such a full-fledged 'paradigm' as displayed in Table 3.1.

Crosslinguistically, the focus/voice attrition phenomenon is observed in many of the Austronesian languages (Ross and Teng (2005); Shibatani (2005); S. Huang (2005)). Some languages exhibit a three-way voice/focus system, such as Saisiyat (M. M. Yeh

2003)[16], Mansaka (a Central Philippine language of Mindanao; Thomas (1958))[17]; some others, like Kavalan (Hsieh 2007)[18], and Bilaan (South Mindanao; Dean (1958)), display a two-way voice/focus system. From the perspective of verbs, not every verb in Philippine-type languages carry a full set of voice/focus affixes as displayed in Table 3.1. Instead, the number of verbs filling all the four slots in the table is low, as H. Huang and S. Huang (2007) have shown for Tsou.

What H. Huang and S. Huang found is that, in Tsou, different verb types prefer different non-actor voice forms to code subject; for instance, most emotion verbs have as their non-actor subjects nominals that function as stimulus and cause/beneficiary, encoded by PV and BV form, respectively; in addition to using BV form to signal beneficiary subject, the PV form of action verbs like a*ut'uc* 'raise; take care' and *cmiyu* 'aim at' is the only non-actor voice marker to encode a patient/goal subject; in contrast, another type of action verbs like *mtoku* 'throw' and *to'so* 'toss' employ their LV form to code a patient/goal subject; sociative verbs (e.g., *noteuyuyunu* 'gather' and *tousvusvutu* 'discuss') employ their BV forms to express non-actor subjects. H. Huang and S. Huang conclude that, in Tsou, various verb types allow for different voice constructions.

Similar observations were also made for Tagalog in McFarland (1976) about forty years ago. McFarland identified numbers of Tagalog affix-alternation classes, such as the *mag-/i-/-an* class with *abot* 'hand to', *bigay* 'give', *buhos* 'pour', etc. as examples there, the *mag-/-in/-an* class with *alis* 'remove', *alala* 'bring', *hati'* 'divide' etc.

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[16] As stated in M. M. Yeh (2003:18-19), there are only three types of focus in Saisiyat, namely, AV, PV and I/BV; as for the LV marker *-an*, it is left for marking a location subject limitedly appearing in nominalizations.

[17] In Mansaka, the subject signaled by referential focus covers location and instrument.

[18] As pointed out in Hsieh (2007:12), for two reasons, Kavalan exhibits only a two-way focus system, i.e., AV and LV. First is regarded to focus attrition in LV and PV; that is, the LV marker *-an* lost its original verbal function, but is instead used to either mark a nominal predicate in equational sentences or carry the function of the PV. Second is for cease of using the IV/BV marker *ti-* by speakers nowadays. However, other Formosanists (Lee 1997, Chang 1997, 2000) argue for the indeed presence of the IV/BV marker *ti-* in the focus system of the language. But, for the sake of update, we adopt Hsieh's analysis here.

included, the *mag-/-an* class where *balik* 'return', *dasal* 'pray', *ingat* 'careful about' and so on are subsumed under, and the *ma-/i-* class covering *haying* 'make public', *kuwento* 'tell', *tabus* 'take out' etc. But, McFarland didn't undertake a classification of verbs into types the way H. Huang and S. Huang (2007) did.

Lexical gaps of verbal affixation on non-actor voice form also exist in the voice system of Squliq Atayal. For example, non-actor subjects of consumption verbs like *nbuw* 'drink', *qaniq* 'eat', and *qom* 'swallow' mostly occur in a PV clause; likewise, perceptual verbs like *kita'* 'see', *pung* 'hear; listen', and *sok* 'smell', and their non-actor subjects are more likely to occur in a LV clause. Table 3.2 and Table 3.3 respectively show the occurrences of four voice types for *qaniq* 'eat' and *kita'* 'see' based on a corpus comprised of both narratives and conversations.[19]

Table 3.2: Occurrences of four voice types for *qaniq* 'eat' in the corpus

Voice Type / Genre	AV *maniq*	PV *niq-un*	LV *niq-an*	CV *s-qaniq*
Narrative	13	6	0	0
Conversation	32	9	0	0
Total (Percentage)	45 (75%)	15 (25%)	0 (0%)	0 (0%)

Table 3.3: Occurrences of four voice types for *kita'* 'see' in the corpus

Voice type / Genre	AV *mita'*	PV *kt-on*[20]	LV *ktan*	CV *s-kita'*
Narrative	10	0	23	6
Conversation	7	0	17	0
Total (Percentage)	17 (27%)	0	40 (63.5%)	6 (9.5%)

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[19] The two different genres of the corpus in Table 3.2 and Table 3.3, narrative and conversation, run to 78'15" and 112'38" respectively.

[20] According to Egerod (1965:269), when a verb root ends in /a'/, the PV marker *-un* takes *-on*, which is a contracted form, composed of /a'/ and /-un/ (i.e., **a'un> on*).

In Table 3.2, no single instance of the *-an* form of *qaniq* 'eat' is found in the corpus; and in Table 3.3, no single instance of the *-un* form of the verb *kita'* 'see' is found in the corpus. A tentative voice system for the two verbs types is given in Table 3.4:
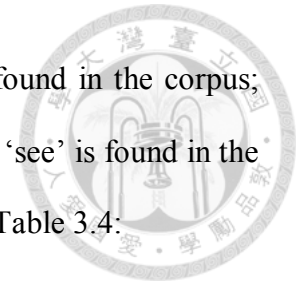
Table 3.4: A tentative voice marking for verbs for perceptual and consuming verb types

Voice type / Verb type	AV	PV	LV	CV
Consumption verbs	√	√	---	---
Perceptual verbs	√	---	√	√

As easily noted from in Table 3.4, either *qaniq* 'eat' or *kita'* 'see' must have a respective AV form, but their respective one or two types of UV voice forms are likely absent from the apparatus of the two lexical items. Virtually, different voice markers of a verb may either signal different TAM information, (e.g., the PV form of *kita'* 'see', *kt-on*, is used in an irrealis event only), or exhibits subtle semantic difference in the interpretation of non-actor subjects in the same category (e.g., the LV form of *nbuw* 'drink', *nbwan*, is used to specify an edible object from a part-whole viewpoint). The challenge then is to have a systematic understanding of the patterning of voice forms of the verbs in the language that reflects not only the mind of language user, but also the morphosyntax of the language. Before taking up that challenge, we turn our attention to previous studies that helps us straighten up the tangles in the asymmetries in voices in Squliq Atayal.

3.3 Verb classification in Atayal based on AV verbs

Tseng (1989) on Squliq Atayal and L. Huang (2000) on Mayrinax Atayal are two important studies that touch upon Atayal verb classification. Tseng adopts Fillmore's (1966, 1968a, 1968b, 1971a, 1971b) case grammar and makes use of two

morphosyntactic tests, causativization and imperativization, to examine about 400 verbs. The results show that these verbs are sorted into three classes, with each covering from one to sixteen subclasses. Class I verbs, including *bali'* 'certainly not', *lima'* 'already', *ini'* 'negator', and so on, can undergo neither the causativization nor the imperativization rule and roughly correspond to English adverbs, as in (3.4):

(3.4) (Tseng 1989:33 (1), original transcription, gloss and translation)
a. *pbaliʔ   muah   quʔ   temu.
    certainly not come   Temu
    'Temu certainly doesn't come.'

b. *bali   isu.
           you
    'You certainly not.'

Class II verbs like *qeilis* 'wounded', *rroq* 'short', *baq* 'know', and *beh* 'near' can only undergo causativization, but not imperativization, and correspond roughly to English adjectives. See (3.5):

(3.5) (Tseng 1989:33 (2), original transcription, gloss and translation)
a. pqeilis   squʔ   laqiʔ   quʔ amui
    cause wounded   child   Amuy
    'Amuy causes that child to be wounded.'

b. *qesilis,   isu.
   wounded   you
   'You, be wounded.'

Class Ⅲ verbs like *mhotaw* 'fall', *kmut* 'kill', *tmapeh* 'call', and *maqut* 'ask' undergo both rules and are more like action verbs, as illustrated in (3.6):

(3.6) (Tseng 1989:33 (3), original transcription, gloss and translation)

a. pbiru   squʔ   amui   quʔ temu.
   cause write   Amuy   Temu
   'Temu causes Amuy to write.'

b. biru,   isu.
   write   you
   'You, write.'

Note that since Class I verbs do not have focus affixes, unlike verbs in the other two classes, it is legitimate to question whether verbs in Class I as real verbs. Besides, though Tseng does not apparently mean her study to be an examination of the AV forms of verbs, most examples she provides in her thesis are AV constructions; In other words, Tseng (1989) is basically a study of AV verbs and Class II verbs and Class III can roughly correspond to stative and dynamic verbs.

L. Huang (2000) is another detailed study on verb classification in Atayal, including four types of AV affixes, *m-*, *-um-*, *ma-*, and *ø-*. In it a continuum is proposed between stative and dynamic AV verbs, based on five morphosyntactic behaviours in the focus/voice system, negative, imperative, and causative constructions, and in the tense/aspect/mood system of Mayrinax Atayal verbs. As also noted in L. Huang (1995a), it is the semantics of verbs that determine the choice of the named AV affixes. The continuum is provided in Figure 3.1 below:

Dynamic verbs   Stative verbs

$\longleftrightarrow$

m-; *-um-*   *ma$_1$-*; *ø$_1$-*   *ma$_2$-*   *ø$_2$-*

Fig. 3.1: Dynamic-stative continuum in Mayrinax Atayal (L. Huang 2000:371)

Verbs affixed with *m-* or *-um-* manifest prototypical dynamic events like jumping (3.7a)

and swimming (3.7b). Verbs marked by *ma₁*- or *ø₁*- designate relatively less dynamic events such as sleeping (3.7c) and fishing (3.7d). Verbs affixed with *ma₂*- like *ma-'icu'* (*ma-ʔicuʔ*) 'afraid' in (3.7e) designates more stativity than *ma₁*- and *ø₁*-. Events specified by verbs marked by *ø₂*- show the greatest stativity, for example, as the verb *kithu'* (*kithuʔ*) 'fat' in (3.7f).

(3.7)

a. (L. Huang 2000: 367 (7a), original transcription, gloss and translation)
    m-astatail   kuʔ   ʔulaqiʔ
    AF-jump   NOM.RF   child
    'The child is jumping.'

b. (L. Huang 2000: 367 (7c), original transcription, gloss and translation)
    l<um>aŋuy   kuʔ   ʔulaqiʔ
    swim<AF>   NOM.RF   child
    'The child is swimming.'

c. (L. Huang 2000: 380 (27c), original transcription, gloss and translation)
    ma₁-qilaap   kuʔ   naβakis.
    AF-sleep   NOM.RF   old.man
    'The old man is sleeping.'

d. (L. Huang 2000: 380 (28a), original transcription, gloss and translation)
    ø₁-panaiq   ʔiʔ   yaβaʔ
    AF-fish   NOM   father
    'Father is fishing.'

e. (L. Huang 2000: 372 (16b), original transcription, gloss and translation)
    ma₂-ʔicuʔ=ciʔ   laʔ.
    AF-afraid=1SG.NOM   PART
    'I am afraid.'

f. (L. Huang 2000: 382 (31a), original transcription, gloss and translation)
    ø₂-kithuʔ   kuʔ   naβakis.
    AF-afraid=1SG.NOM   NOM.RF   old.man
    'The old man is fat.'

Likewise, in the case of Squliq Atayal, the three AV affixes, *m(-)*, *-m-* and *ø*, also mark verbs designating events of different dynamicity/stativity and based on a preliminary examination, it can be proposed that *-m-* occupies the extreme dynamic end of the continuum, while other two and their respective variants come in between two extreme ends of the continuum. For example, the verbs *q-m-wax* 'clean bowl(s) (< *qwax*)', *maniq* 'eat (< *qaniq*)', and *phapuy* 'cook (<*phapuy*)' manifest more dynamic events, and *tehuk* 'arrive (< *tehuk*)', *mgyax* '(door is) open (< *gyax*)', *mtalah* 'red (< *talah*)', and *blaq* 'good (< *blaq*)' designate less dynamic events. A tentative dynamic-stative continuum in Squliq Atayal can be proposed in Fig. 3.2 below, however, more careful analysis as L. Huang (2000) is left for further research.

Dynamic verbs   Stative verbs

⟷

-m-;m₁(-);ø₁- $m_2(-);ø_2-$

Fig. 3.2: Dynamic-stative continuum in Squliq Atayal

It is clear then that Tseng (1989) and L. Huang (2000), relying primarily on the semantic and morphosyntactic properties of verbs, deal with AV verb classification in two dialects of Atayal. It can be also found that the class of any verbs, especially the choice of AV affixes, is lexically determined. An interesting question then arises: Is the choice of the UV affixes as to any verbs in Squliq Atayal also lexically determined? The foregoing discussions on Table 3.2, Table 3.3, and Table 3.4 suggest the possibility.

However, analyses of UV verbs have always shown a greater degree of complexity. In my opinion, there is a lack of a clear-cut division between plain voice markers and applicative affixes that have been responsible for the notorious complexity.
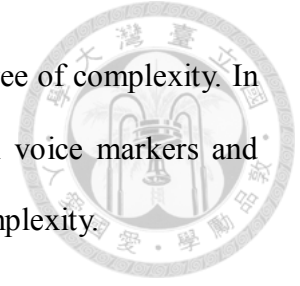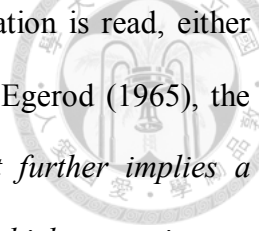
3.4 Egerod (1965), Rau (1992), and L. Huang (1993): UV verbs in Atayal

Egerod (1965), Rau (1992), and L. Huang (1993) are three most representative previous studies on Squliq Atayal. A comparison among the three studies regarding three types of UV constructions suggests a most plausible solution with respect to the main concern in this thesis, namely verb classification. Let's first consider the *–an* 'locative' voice affix. Table 3.5 is a summary of the definitions of the affix in the three studies.

Table 3.5: Definitions of the *-an* voice marker provided in Egerod (1965), Rau (1992), and L. Huang (1993) and verb examples

Study	The voice marker named *-an*	Definition	Selected examples
Egerod (1965)	Definite passive	"the construction contains an implicit or explicit reference to an object which is affected by the event or action. It further *implies a definite specific reference to a known place, time or circumstance* which enters into or circumscribes the action or event" (Egerod 1965:271)	1. *hyag-an* 'the place people hunt beasts' (< *hbyaw* 'hunt') 2. *rng-an* 'feed ' (< *ranga'* 'feed') 3. *pm-an* (< *pima'* 'bathe')
Rau (1992)	Locative passive form	"The local passive verb is oriented to *the place of the action* or *the person to* or *for* whom an action is done." (Rau 1992: 42)	1. *hkngy-an* (< *hkangi* 'walk') 2. *btaq-an* (< *betaq* 'to stab') 3. *thk-an* (< *tehuk* 'to arrive')
L. Huang (1993)	Transversal	"the TRANSVERSAL *-an*, which designates some aspect of the EVENT's history (whether spatial trajectory or trajectory of the performance) points to the tea drunk to the moment of speaking, hence, 'have been drinking [but not now and not completed]" (L. Huang 1993:32)	1. *hbing-an* 'the place where (water) drips' (< *hbing* 'drip') 2. *gal-an* 'the place someone caught something' (< *'agal* 'catch; take') 3. *'t-an* 'crush' (< *ttu'*) 4. *pqut-an* 'ask' (< *paqut*)

A commonality among the three studies is that the concept of location is read, either explicitly or by inference, into their definitions of *-an*. That is, in Egerod (1965), the nominal expression 'place' apparently occurs in the sentence *'It further implies a definite specific reference to a known place, time or circumstance which enters into or circumscribes the action or event'*, in Rau (1992), it is the locative nominal, i.e., 'the place of the action', that is appealed to define the marker *-an*, and in L. Huang (1993), it seems as if the image of history is used to stand for the 'scene' in which an object is affected, but the 'scene' can be analogous to a location. Note that, in most examples regarding *-an* constructions, it can be found that the subject is an applicative locative. *hyag-an* 'the place people hunt beasts', *hkngy-an* 'the road someone walks on', and *hbing-an* 'the place where (water) drips' are the examples. For the time being I will classify verbs of this sort as Type A.

However, a remarkable difference comes out from the three studies. That is, only Rau takes the notion of human nominal into account to refer to the subject of an *-an* clause structure, when she observes that the subject may refer to *'the person to or for whom an action is done'*, as illustrated by verbs like *btaq-an* 'to stab (< *betaq*)' and *pm-an* 'bathe (< *pima'*)'. In the other two studies, there are also many *-an*-marking verbs taking such a non-applicative locative as the subject, including *rng-an* 'feed (< *ranga*)' and *pm-an* 'bathe (< *pima'*)' in Egerod and *t'-an* 'crush' (< *git*) and *pqut-an* 'ask (< *paqut*)' in L. Huang. Verbs such as these are grouped into Type B. Therefore, it is legitimate to say that the *-an* verbs illustrated in the three studies are used to encode two distinct types of undergoer subject: one type refers to peripheral, locative applicative (i.e., verbs in Type A) and the other to their intrinsic undergoer (i.e., verbs in Type B). This distinction is important for a systematic understanding of the patterning of voice forms of the verbs in the language.

114

Let's proceed next to consider previous analyses on the *-un* voice marker. See

Table 3.6.

Table 3.6: Definitions of the *-un* voice marker provided in Egerod (1965), Rau (1992), and L. Huang (1993) and verb examples

Study	The voice marker *-un* named	Definition	Selected examples
Egerod (1965)	Indefinite passive	"the construction contains an implicit or explicit reference to an object (animate or inanimate) which is affected by the event or action expressed by the verb. No definite reference to anything which forms part of the speaker's situation at the time of speaking is implied" (Egerod 1965:270)	1. *snhy-un* (< *snhi'* 'to believe') 2. *truy-un* (< *turuy* 'to roll') 3. *baq-un* (< *baq* 'know; can')
Rau (1992)	Direct passive form	"The direct passive verb is oriented to the direct recipient of the action, i.e., the thing or person *brought into a certain state, taken* or *moved toward* the agent, *fetched*, and the like" (Rau 1992:40)	1. *niq-un* (< *qaniq* 'eat') 2. *kyap-un* (< *kzyap* 'catch') 3. *gal-un* (< *agal* 'to take')
L. Huang (1993)	Culminitative	Focuses on the outcome of an event, and is associated with the thing/object involved in a respective activity (L. Huang 1993:35)	1. *pzyi'-un* (< *pzyuy* 'to play') 2. *nb-un* (< *nbuw* 'drink') 3. *sy-on* (< *soya'* 'like')

The three studies consistently exclude the notion of location from the subject of an *-un*

115

clause; instead, the subject of an *-un* verb refers to a completely-affected undergoer, which can be either an inanimate or animate participant in events. In short, in this respect there is no difference among the three studies. But note that, for verbs illustrated in these studies, their *-an* form is used to specify an applicative location. This point is made in Egerod and L. Huang, as illustrated in (3.8) below:

(3.8)

a. (Egerod 1965:277)

hiagan	maku'	bziok	nhiun	rgiax	qasa
hyag-an=maku'	bzyok	nhy-un		rgyax	qasa[21]
chase-an=1SG.GEN	boar	the.wild-un		mountain	that

'I always hunt wild boar on that mountain.'

b. (L. Huang 1993:35 (57c))

'gal-an=mu	qulih
take-an=1SG.GEN	fish

'(the place) where I caught a fish'
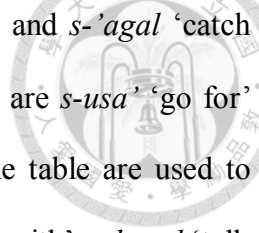
Table 3.7 is a summary of the definitions of the *s-* affix in the three studies under investigation.

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[21] Morpheme-by-morpheme coding and glossings are mine.

Table 3.7: Definitions of the *s-* voice marker provided in Egerod (1965), Rau (1992), and L. Huang (1993) and verb examples

Work	*s-* named	Definition	Selected examples
Egerod (1965)	Relational passive	"The relational passive indicates an implicit or explicit reference to *a means by which*, or *a person on account of which*, the action is undertaken" (1965:270)	1. *s-usa'* 'go for' (< *usa'* 'go') 2. *s-biq* 'present with' (< *biq* 'give') 3. *s-'agal* 'take for' (< *'agal* 'to take')
Rau (1992:44)	Instrumental passive form	'The instrumental passive verb refers to an orientation which has at least three meanings, depending on the context: *instrumental*, *benefactive*, and *conveyance*.' (Rau 1992:44)	1. *s-biru'* 'write with something (< *biru'* 'write')' 2. *s-p'aziy* 'dance for someone' (< *p'aziy* 'dance') 3. *s-kayal* 'talk about something (< *kayal* 'talk')'
L. Huang (1993)	Circumstantial	Referring to the roles' peripherality "allowing for the diversity which 'incorporates the semantics of 'beneficiary', 'instrument', and 'about', as well as the 'with something/one', 'for some condition to be met', and 'on account of'" (L. Huang 1993:29).	1. *s-'agal* 'catch with; take for' (< *'agal* 'take ') 2. *s-paqut* 'ask about' (< *paqut* 'to ask') 3. *s-'alax* 'leave' (< *'alax* 'leave')

Based on a comparison among the three studies, instrumental and benefactive are two commonly accepted readings given to the *s-* marker. Verbs given in Table 3.7 conveying

the notion of the instrument include *s-biru'* 'write with something' and *s-'agal* 'catch with; take for', and those used for expressing a beneficiary subject are *s-usa'* 'go for' and *s-p'aziy* 'dance for someone'. Thus, the remaining verbs in the table are used to express the meaning of conveyance. Examples include *s-biq* 'present with', *s-kayal* 'talk about something', *s-paqut* 'ask about', and *s-'alax* 'leave'. Of the three studies, only Rau notes the meaning of conveyance to the subject encoded by the *s-* form of a verb.[22]

Like the case in the *-an* form, the subject encoded by the *s-* form of verbs can be either an intrinsic undergoer or an applicative instrument/beneficiary undergoer. For the subject meaning a conveyed, transported theme, it is an argument subcategorized by the semantics of verbs like *s-biq* 'present with', *s-kayal* 'talk about something', *s-paqut* 'ask about', and so on. It is thus better to consider these verbs as belonging to a class distinct from that containing verbs like *s-biru'* 'write with something' and *s-usa'* 'go for' since their subject is automatically assured. In short, for the verbs marked by the CV *s-* affix mentioned in the three studies under investigation, there is a need to make a finer distinction between *s*-marking verbs that fall under two different classes.

We have shown then that failure to observe the distinction between an intrinsic undergoer subject and an applicativized subject in either the *-an* or the *s-* construction has contributed to the confusion surrounding the grammar of the UV verbs. Chen's (2007) misanalysis is another example: she considers the markers LV *-an* and B/IV *s-* in Squliq Atayal as applicative affixes and then proposes a new two-way voice system with two applicatives for the language. Let's consider Chen (2007).

3.5 Chen (2007): Are all *-an* and *s-* constructions applicative constructions?

As just noted, Chen (2007) considers the markers LV *-an* and B/IV *s-* in Squliq

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[22] Fuhui Hsieh (pers. comm.) has also pointed out that, in Paiwan, most *s-* constructions are found mainly used to encode a transported theme subject.

Atayal as applicative affixes, as displayed in Table 3.8:

Table 3.8: Two-way voice system (Chen (2007: 38, Table 2.3))

Dialects	Variants	Actor-Voice	Non-Actor-Voice		
Squliq	Jianshih/Wulai	*m-*; *-m-*; *ø*	*-un*	*ø*	
				Applicative *-an*	Applicative *s(i)-*
	Taoshang	*m-*; *-m-*; *ø*			
C'uli'	Mayrinax	*m-*; *ma-*; *-um-*; *ø*			

Examples are given in (3.9):

(3.9) Taoshang Atayal (Chen 2007: 38 (20), original transcription and gloss)

a. AV
    m-bazi
    AV-buy

b. UV (or NAV) without applicatives
    bzir-un
    buy-NAV

c. UV (or NAV) with an applicative *-an*
    b<in>zir-an
    buy<PST>buy-NAV.APPL1

d. UV (or NAV) with an applicative *s(-)*
    s-baziy
    NAV.APPL2-buy

Since the arguments inherently selected by the verb *bazi* (or *baziy* in Jianshih Atayal) are an actor encoded as the subject of the *m-* form of the verb, and an undergoer, encoded as the subject of the verb's *-un* form. In contrast, there is no any inherent relationship between the locative subject and the *-an* form of the verb or between the

instrumental/beneficiary subject and the *s-* form of the verb; instead, it is a valence increasing operation, applicative, that promotes a peripheral participant or entity, like a location or an instrumental/a beneficiary, to a core role. Chen's analysis for (3.9) so far is on the right track. However, it is wrong to consider the *-an* and the *s-* marker in all UV constructions as applicative affixes. The reason is quite simple. The subject encoded by the *-an* or the *s-* marker of some verbs can also be the undergoer argument inherently selected by the verbs. Chen's examples of the *-an* marker as an applicative affix are given in (3.10):

(3.10)
a. (Chen 2007: 64 (14b), original transcription, gloss and translation)

biq-an	biru	na	temu	qu	tali
give-NAV.APPL1	book	GEN	Temu	NOM	Tali

'Temu gave Tali a book.'

b. Taoshang Atayal (Chen 2007: 69 (25b), original transcription, gloss and translation)

thk-an	biru	qu	bnka
arrive-NAV.APPL1	book	NOM	Taipei

'Books could be delivered to Taipei.'

c. (Chen 2007: 70 (27b), original transcription, gloss and translation)

cyux=nya	ps'un-an	qtahi'	kwara	qu	hyal
PROG=3SG	fill-NAV.APPL1	ant	all	NOM	floor

'The floor was filled with ants.'

d. Taoshang Atayal (Chen 2007: 81 (44a), original transcription, gloss and translation)

sawy-an	ni	tali	qu	rimuy
like- NAV.APPL1	GEN	Tali	NOM	Rimuy

'Tali likes Rimuy.'

e. Taoshang Atayal (Chen 2007: 81 (44b), original transcription, gloss and
translation)

kt-an	ni	tali	qu	rimuy
see-NAV	GEN	Tali	NOM	Rimuy

'Tali saw Rimuy.'

f. Taoshang Atayal (Chen 2007: 83 (48a), original transcription, gloss and
translation)

wal pgyar-an	ni	rimuy	qu	hya
PRF escape-NAV.APPL1	GEN	Rimuy	NOM	3SN

'Rimuy ran away from him.'

Tali (or *Tali'*) in (3.10a), *bnka* 'Taipei' in (3.10b), *hyal* 'floor' in (3.10c), *Rimuy* in
(3.10d) and (3.10e), and *hya* in (3.10f) are not information about where an event occurs
or where an actor exerts his or her force upon the undergoer subcategorized by the
semantics of verbs; instead, they are an undergoer argument inherently selected by their
respective verb.

Similar misanalysis also occurs in the case of the *s-* constructions, though rare.
Consider (3.11):

(3.11) Taoshang Atayal (Chen 2007: 87 (1a), original transcription, gloss and
translation)

s-biq=nya	laqi	qu	pila
NAV-APPL2-give=3SG	child	NOM	money

'He gave/gives a child the money.'

Comparing to *Tali* (or *Tali'*) in (3.10a), the conveyed theme *pila* (or *pila'*) in (3.11) is
another argument subcategorized by the verb *biq* 'give', but not a promoted argument
via applicativization. Except for the verb *s-biq* 'give' as in (3.11), other verbs affixed
with *s-* in Chen (2007) are indeed applicative verbs. (3.12) are examples of the *s-* affix

as either an instrumental or a beneficiary applicative marker:

(3.12)

a. Jianshih Atayal (Chen 2007: 99 (23a), original transcription, gloss and translation)

s-bihiy	temu	na	yaba	qu	laqi.
NAV.APPL2-hit	Temu	GEN	father	NOM	child

'Father hits Temu for the child.'

b. Jianshih Atayal (Chen 2007: 99 (23b), original transcription, gloss and translation)

s-bihiy	temu	na	yaba	qu	hawku.
NAV.APPL2-hit	Temu	GEN	father	NOM	stick

'Father hits Temu with the stick.'

c. Jianshih Atayal (Chen 2007: 99 (23b), original transcription, gloss and translation)

s-bahoq	na	tali	qu	temu.
AV.APPL2-wash	GEN	Tali	NOM	Temu

'Tali washes clothes for/instead of Temu.'

In sum, Chen's analysis is not appropriate since not all *-an* and *s-* constructions in Squliq Atayal are applicative ones. Instead, as seen in the discussion in Section 3.4, for the undergoer voice in the language, a further distinction between the plain and the applicative sets must be made is now appreciated. A similar analysis has been proposed in Wu (2006) for Amis. The past confusion surrounding voice systems and verb classification with respect to verbs' UV forms can now be removed.

3.6 L. Huang (1993): *-un* vs. *-an*

L. Huang (1993) gives a careful analysis of the contrast between the *-un* and the *-an* marker. In particular, three types of the *-un/-an* contrast are identified.

First, there is a contrast between the endpoint *vs.* path reading, especially in motion verbs. Consider the verb *wah* 'come' as illustrated in (3.13):

(3.13)
a.   (L. Huang 1993: 31 (49b), original transcription, gloss and translation)
    wah-un-maku?[23]   kira
    come-UN-1S.G   later
    'I will come (to this place) later.'

 b.   (L. Huang 1993: 31 (49c), original transcription, gloss and translation)
    wah-an-maku?   kira
    come-AN-1S.G   later
    'I will come (this way) later.'

According to L. Huang, the *-un* form of the verb *wah* 'come' is designated for specifying an endpoint as the focus in a 'coming' event, as in (3.13a), while the *-an* form is employed for highlighting a path in the event, as in (3.13b). As also pointed out by L. Huang, such a spatial interpretation of 'path' for *-an* and 'endpoint' for *-un* only applies to spatial motion events.

The second contrast has to do with the part-vs.-whole reading associated with some verbs.

(3.14)
a.   (L. Huang 1993: 31 (50a), original transcription, gloss and translation)
    wan-maku?   nbu-n   abaw   qani la
    ASP-1S.G   drink-UN   tea   this LA
    'I have drunk up this tea (now).'

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[23] '?' adopted in L. Huang (1993) stands for the glottal stop.

b. (L. Huang 1993: 31-2 (50b), original transcription, gloss and translation)
wan-maku? nbw-an abaw qani la
ASP-1S.G drink-AN tea this LA
'I have drunk this tea (now).'

Compared (3.14a) to (3.14b), it can be observed that the *-un* form of the verb *nbuw* 'drink' is used to express the realis reading that the tea is completely consumed, while its *-an* form is to describe that some tea is left.

The last contrast pertains to the realis vs. irrealis difference. The *-un* form of the verb *nbuw* 'drink' is used to express an irrealis event, while its *-an* form is used in a realis event. Consider (3.15):

(3.15)
a. (L. Huang 1993: 32 (51a), original transcription, gloss and translation)
nyux-maku? nbu-n abaw qani la
ASP-1S.G drink-UN tea this LA
'I am drinking this tea (at this moment).'

b. (L. Huang 1993: 32 (51b), original transcription, gloss and translation)
nyux-maku? nbw-an abaw qani la
ASP-1S.G drink-AN tea this LA
'I have been drinking this tea.'

The dialect investigated in L. Huang is that of Wulai. The last two types of contrast are also found in the Jianshih dialect investigated in this thesis, though there are other minor differences between the two dialects.

The *-un/-an* contrast is not only restricted to a single lexical item, but can also occur in a number of different verbs, as mentioned in earlier section in this chapter. For example, for some verbs like perceptual verbs *kita'* 'see' and *pung* 'hear' or motion verbs *wah* 'come' and *usa'* 'go', their respective intrinsic undergoer tends to be

specified by their *-an* form, while others like consumption verbs *qaniq* 'eat' and *nbuw* 'drink' or cognitive verbs *nglung* 'think' and *spi'* 'dream', it is their *–un* form that is tied to their intrinsic undergoer. (3.16) and (3.17) illustrate this point:
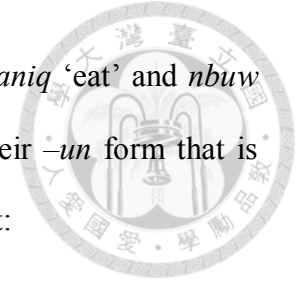
(3.16)

a. ini'=nya'   niq-i'   na'   qu'   mami'.
   NEG=3SG.GEN   eat-i'   still   NOM   rice
   'He has not eaten (the) rice yet.'

b. wal=nya'   niq-un   qu'   mami'   la'.
   ASP=3SG.GEN eat-un   nom   rice   FP
   'He has eaten (the) rice.'

c. niq-aw=mu   kira'   mami   qa'.
   eat-aw=1SG.GEN   later   rice   DEM
   'Let me eat the rice later.'

(3.17)

a. ini'=nya'   kta-i'   qu'   siasing=nya'   na'.
   NEG=3SG.GEN   see-i'   NOM   picture=3SG.GEN   still
   'He has not seen his picture yet.'

b. wal=nya'   kt-an   qu'   siasing=nya'   la'.
   ASP=3SG.GEN   see-an   NOM   picture=3SG.GEN   FP
   'He has seen his picture.'

c. kt-ay=mu   kira'   siasing=nya'.
   see-ay=1SG.GEN   later   picture=3SG.GEN
   'Let me see his picture later.'

In (3.16a) and (3.17a), the negator *ini'* denies the performance of an event (or a state), and then either *qaniq* 'eat' or *kita'* 'see' is suffixed with *–i'*. In (3.16b) and (3.17b), the two verbs are affixed with two different voice markers in their respective realis UV

125

construction, namely, *-un* for *qaniq* and *-an* for *kita'*. Likewise, the two verbs *qaniq* and

kita' are respectively suffixed with two different subjunctive markers, *-aw* as in (3.16c)

and *-ay* as in (3.17c). At this point, it is legitimate to say that, via examples in sets (b)

and (c), the two verbs *qaniq* and *kita'* are then considered as belonging to two distinct

categories at the level of morphosyntax; though if one only goes on the basis of the

constructions alone as expressed in set (a), we might think that the two separate verbs in

question are identical in their morphosyntactic class.

Besides, the *-i'* affix can also be used to negate an event encoded by verbs like

buling 'throw', *panga'* 'carry on back', *biq* 'give', etc., which are suffixed with a *s*-

marker in a realis UV clause structure. Consider (3.18) to (3.22):

(3.18)

a.   ini'=nya'   bling-i' qu'   syup   qasa'.
     NEG=3SG.GEN   throw-i' NOM   dreg   that
     'He didn't throw away that dreg.'

b.   ini'=nya'   pnga-i'   qu'   pagay   qasa'.
     NEG=3SG.GEN   carry.on.back-i' NOM   paddy   that
     'He didn't carry that (sack of) paddy on back.'

c.   ini'=ku=nya'   biq-i'   na' qu'   pila'.
     NEG=1SG.NOM=3SG.GEN   give-i' still NOM   money
     'He has not given me (the) money yet.'

(3.19)

a.   wal=nya'   s-buling qu'   syup   qasa'.
     ASP=3SG.GEN   s-throw   nom   dreg   that
     'He has thrown away that dreg.'

b.   wal=nya'   s-panga'   qu'   pagay   qasa'.
     ASP=3SG.GEN   s-carry.on.back   NOM   paddy   that
     'He has carried that (sack of) paddy on back.'

126

c. wal=saku'=nya'   s-biq   qu'   pila'.
    ASP=1SG.NOM=3SG.GEN   s-give   NOM   money
    'He has given me (the) money.'

(3.20)

a. ini'=nya'   bling-an   qu'   syup   qasa'.
    NEG=3SG.GEN   throw-an   NOM   dreg   that
    'He didn't throw that dreg.'

b. ini'=nya'   pnga-an   qu'   pagay   qasa'.
    NEG=3SG.GEN   carry.on.back-an NOM   paddy   that
    'He didn't carry that (sack of) paddy.'

c. ini'=ku=nya'   bq-an   na' qu'   pila'.
    NEG=1SG.NOM=3SG.GEN   give-an   still NOM   money
    'He has not given me (the) money yet.'

(3.21)

a. ini'=nya'   an s-bling   qu'   syup   qasa'.
    NEG=3SG.GEN   AN s-throw   NOM   dreg   that
    'He didn't throw that dreg.'

b. ini'=nya'   an s-panga'   qu'   pagay   qasa'.
    NEG=3SG.GEN   AN s-carry.on.back nom   paddy   that
    'He didn't carry that (sack of) paddy.'

c. ini'=ku=nya'   an s-biq   na' qu'   pila'.
    NEG=1SG.NOM=3SG.GEN   AN s-give   still NOM   money
    'He has not given me (the) money yet.'

(3.22)

a. ini'=nya'   blng-ani'   qu'   syup   qasa'.
    NEG=3SG.GEN   throw-ANI'   NOM   dreg   that
    'He didn't throw that dreg.'

b. ini'=nya'   png-ani'   qu'   pagay   qasa'.
    NEG=3SG.GEN   carry.on.back-ANI'   NOM   paddy   that
    'He didn't carry that (sack of) paddy.'

127

c. ini'=ku=nya'   bq-ani'   na'   qu'   pila'.
    NEG=1SG.NOM=3SG.GEN   give-ANI'   still   NOM   money
    'He has not given me (the) money yet.'

In (3.18), events encoded by *buling* 'throw', *panga'* 'carry on back', and *biq* 'give' are negated by means of suffixing these verbs with the marker *-i'*. However, in (3.19), since these verbs are marked by a *s-* affix, they are then categorized under the *s-* verb class. In other words, via a comparison between UV realis constructions and negative constructions, it can be observed that the language divides verbs into three different classes, the *-un* class (e.g., *qaniq* 'eat'), the *-an* class (e.g., *kita'* 'see'), and the *s-* verb class (e.g., *buling* 'throw'). Note that, since there are other three selections to negate events encoded by verbs under the *s-* class, namely, the *-an* marking in (3.20), the *an s-* marking in (3.21) and the *–ani'* marking in (3.22), in an analogous terms, the *s-* class does not need to compete with either the *-an* or the *-un* class for the *-i'* marker in negative constructions. As a result, a sharp contrast remains between *-un* and *-an*.

3.7 Proposal

In this chapter, we have surveyed previous studies on the verb classification, especially from the perspective of the UV markings on verbs, this survey leads naturally to the conclusion that verbs in Squliq Atayal likely have a default choice among the three UV affixes, *-un*, *-an*, and *s-* to encode their separate intrinsic undergoer under a very neutral context; this implies at least three verb classes are distinguished in the language, i.e., the *-un* class, the *-an* class, and the *s-* class and, most importantly, each class may be said to have its own peculiar voice system. Taking different conditions for the use of an UV form into account, a tentative overall voice system for verbs under the three classes can be provided as follows.

Table 3.9: A tentative voice system for verbs in *-un c*lass in Squliq Atayal

AV	UV				
m- or *−m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	**Default form** (used in neutral context)	✓	✘	✘
		Non-default form (used in limited context)	✓	✓	✘
	Applicative undergoer	Used in neutral context	✘	✓	✓
Possible examples	*agal* 'take; catch', *baq* 'know', *baziy* 'buy', *biru'* 'write',				

Table 3.10: A tentative voice system for verbs in *-an c*lass in Squliq Atayal

AV	UV				
m- or *−m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	**Default form** (used in neutral context)	✘	✓	✘
		Non-default form (used in limited context)	✓	?	?
	Applicative undergoer	Used in neutral context	✘	✓	✓
Possible examples	*ranga'* 'feed', *tehuk* 'arrive', *usa'* 'go', *biq* 'give', *paqut* 'ask'				

Table 3.11: A tentative voice system for verbs in *s-* *c*lass in Squliq Atayal

AV	UV		-un	-an	s-
m- or *–m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	Default form (used in neutral context)	✗	✗	✓
		Non-default form (used in limited context)	?	?	?
	Applicative undergoer	Used in neutral context	✗	✓	✓
Possible examples	*alax* 'leave', *buling* 'throw', *kayal* 'talk about', *panga'* 'carry on back', *biq* 'give', *paqut* 'ask'				

In addition to the three types of voice system, there may be some others in the language of Squliq Atayal yet to be uncovered.

In the following chapters, I will attempt to find out the factors responsible for the relationship between a verb and its default UV voice form. A language system provides meanings based on concepts derived from embodiment, and the voice system is such a system. Since language is a reflection of the ways the language users observe, perceive, and construe their world, and, as proposed by Putnam (1988:73), we "cannot individuate concepts and believes without reference to the environment"; we should undertake to lay out a theoretical framework for detailed descriptions of the events encoded by every verb. In the following chapter, we turn to the theoretical framework.
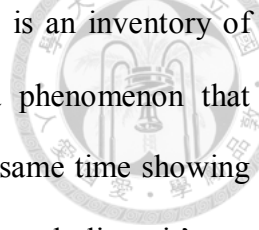
CHAPTER 4
THEORETICAL FRAMEWORK

4.1 Introduction

Language encodes thoughts and ideas based on our daily interaction with and observation of the world around us. For example, in the sentence *Mary was in a stew over her wedding dress*, the metaphorical elaboration on someone('s state) is triggered by the mapping between a sensory and an emotional domain because, for Mary's anxious state, it can be conventionally imagined as food being stewed in a pan. That is, by this case, our daily sensory-perceptual experiences are means for the understanding of an abstract event via such an imagined picture that food was stewed in a pan. Since even such a very abstract event can have an embodied content, it is rational for us to infer that language system reflects embodied experiences. This is the stand cognitive linguists take. For cognitive linguists (e.g., Fauconnier (1985, 1999), Lakoff (1982, 1987, 1990), Langacker (1976, 1987, 2002), Johnson (1987), Talmy (1975, 1983, 1985, 1988, 2000)), language is understood as a result of general cognitive mechanisms and processes grounded in embodied experiences, rather than as a self-contained, context-independent system. Besides, the word 'embodied' in 'embodied experiences' implies that (the meaning of) a lexical item or clausal expression can be 'imaginatively figured' as a physical unit positioned in a scene or interacting with other units and having had their relation schematized in a certain way. Note that, as mentioned, linguistic units are derived from sensory and perceptual experiences as we interact with and move about in the world and undergo abstraction as they become part of the language system. Now as Hopper (1987) and others have argued, linguistic structure is not immanent in a language, but emerges through schematization and repetition of

favored word groupings in discourse, and the grammar that results is an inventory of symbolic units organized by schematic relations. Language is a phenomenon that exhibits apparent structure and regularity of patterning while at the same time showing considerable variation at all levels. The two notions, schema and 'symbolic unit', are crucial to the concern of the present study, i.e., verb classification in Squliq Atayal. In the following sections I will take up the issue of language as a schematic system and how it relates to the grammar of Squliq Atayal.

4.2 Meanings relativized to scenes: Fillmore's (1976) Frame Semantics

Meanings of a lexical item are relativized to scenes. Take the English giving event as an example. A cluster of information associated with the event includes (who) the buyer is, (who) the seller (is), (what) the good (is), and (what) the perspective (i.e., the voice the speaker is choosing to describe a certain situation of the event). The knowledge of 'give' should be such an encyclopedic assemblage of all these information retrieving or perceiving form a text, named the frame of GIVE. This particular way for looking at word semantic knowledge is proposed by Fillmore (1976), termed Frame Semantics. Similar notions are 'script' (Schank and Abelson 1977) and 'idealized cognitive model (ICM)' (Lakoff 1987).

Frame semantics (termed "frame" hereafter) is a process of computing all information in an event by constructing, in the interpreter's understanding and imagination, whereby a tight connection between lexical semantics and the process of text comprehension is established (Fillmore 2006:384). The notion of frame fits the present study based on two reasons. First is its possibly useful access to the target language, since it is not familiar to most people. Second is associated with my goal for the present study, i.e., verb classification. Since English verbs like *give, receive* and *take*

consistently denote the transfer of the possession or the control of an entity from one person to another, Fillmore categorizes these verbs under the frame of COMMERCIAL EVENT (Fillmore 1982a).
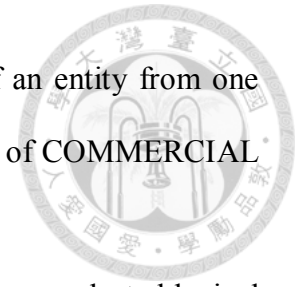
That is, in Squliq Atayal, since sometimes we are unsure whether a selected lexical item fully or partially expresses a target situation to others in communications, frame then plays a useful tool for event construal or verb classification. For example, when expressing a seeding event, the language speaker uses the lexical item *ghap*. *Ghap* is precategorial, meaning 'sow seed(s)' or 'seed(s)'. From the viewpoint of a field for seeding as the more salient in an event encoded by the *-an* form of the verb, *ghap* is classified into an *-an* verb class; however, since a seeding event also involves the notion of arch, as one crucial element for spatiomotion activities in the language, an arching entity is then realized as the more salient participant in the event specified by the verb's *s-* form and in light of this, the verb's class is a *s-* one. From the perspective of saliency of undergoer(s), the verb *ghap* is classified as the Conveyance schema, or the frame of CONVEYANCE, under Fillmore's frame. Since other verbs like *biq* 'give' and *qapax* 'paste up' have identical notions as well as syntactic representations, i.e., a transferring destination by virtue of the *-an* form and a transferred object in an arching movement via their *s-* form, they are subsumed under the same Conveyance schema as *ghap* 'seed'.

4.3 Language as a schematic system: Johnson's (1987) *Image Schema*

In his *The Body in the Mind*, Mark Johnson (1987) developed the theory of image schema and conceived image schema of a structure for organizing our embodied experience and comprehension. An image schema is defined as a recurrent pattern, shape, and regularity emerging from repeated instances of embodied experiences and an essentially more relatively abstract conceptual representation, but not a rich or detailed

133

picture (Johnson 1987:24-30). This definition implies two points about the characteristics of image schema associated with our study.

The first point pertains to the schema-instance relation. Since any image schema has numerous instances, its instances are then grouped into a certain class. This idea can apply to the relation between verbs and verb type. That is, if some different verbs encode a similar situation, their schematic meanings are then identical and thereby the verbs are classified into a certain type. Consider (4.1) below:

(4.1) a. John went out of his room.
       b. John extracted some sentences from the book.
       c. John and Mary drew the same conclusion.

In (4.1), it is easily observed that verbs or expressions like 'go out of', 'extract' and 'draw' consistently have OUT as their schematic meaning, we then by the schema classify them into the OUT verb type. For the OUT verbs or events, they can be diagramed in terms of the schema below:
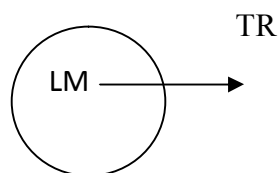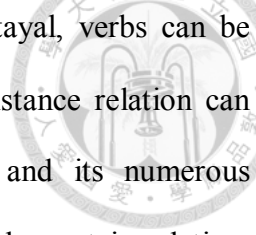
Fig. 4.1: The OUT Schema (Johnson 1987:32 (Figure 4))

Fig. 4.1 depicts the relation that the "landmark" (LM) is designed for anchoring the movement of the "trajector" (TR). Corresponding to (4.1a), (4.1b), and (4.1c), the circle (LM) represents his room, the book, and an implicitly-expressed issue, and the arrow stands for the outward 'movement' of John, some sentences, and same conclusion,

respectively. Therefore, I would like to propose that in Squliq Atayal, verbs can be classified in terms of their schematic meanings and the schema-instance relation can apply to the relation that holds between a certain verb type and its numerous instantiations of verb tokens. Besides, a schema consists of parts and a certain relation. For the case of the OUT schema, parts refer to the concepts, TR and LM, while relation is manifested by the schematic meaning, i.e., OUT. Parts can also be seen as equivalent to clausal arguments and their relation is defined by the verb semantics. A verb elaborates a verb type. I will discuss how the theory of image schema is applied to verb classification in Chapters 6 through 9.

The second point concerns the types of perception a schema involves. According to Johnson (1987:44), all image schemata are gestalt structures not only in figure-ground relations, but also in forceful interactions (Johnson 1987:44). Also recall that a schema is a conceptual representation based on our observation of and interaction of the world around us. 'Observation' here means the definition of a certain schema operated on by our visual perception, and 'interaction' implies the exertion of force on the entities in an event, i.e., the force perception. In short, a schema is usually operated on by the two kinds of perception, visual perception and force perception.[24]

Visual perception deals with the figure-ground relation between participants in an event, since "an event can be conceptualized as two objects relating to each other in space" (Talmy 2000 (I):312). While (4.1) above illustrates the OUT relationship between the figure and the ground. (4.2a) and (4.2b) below show that the figure and the ground are in an IN and a TOWARD relation, respectively:

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[24] A similar idea is proposed by Talmy (2000) for his Conceptual Structure System, in which the two kinds of perception operate. The system is comprised of 4 schematic systems: the Configurational Structure, the Perspective, the Attention and the Force-Dynamic Systems. The first three operate in terms of spatial perception, while the last one in terms of kinaesthetic perception.

(4.2) a. Roses are in a vase.

  b. John invited Mary to a party.

Force perception is concerned with an entity's change in its internal structure. Some entities have an inherent capacity for energy, and others only receive energy from external entities. Our bodily experiences are usually operated on by a variety of force structures, such as the seven common force structures proposed by Johnson (1987:45-8), i.e., COMPULSION, BLOCKAGE, COUNTERFORCE, DIVERSION, REMOVAL or RESTRAINT, ENABLEMENT, and ATTRACTION.

Take the BLOCKAGE force structure as an example. It operates on the IN relation or the IN schema illustrated in (4.2a), in which the force tendency of the agonist *roses* may be toward scattering, but this time the opposing, blocking force of the antagonist, bottle, is greater and prevents the scattering motion. (4.2b) illustrates another force structure, i.e., the ATTRACTION force structure. It derives from the experiences in which the agonist (e.g., Mary) is drawn towards the antagonist (e.g., John) due to the force exerted upon it.[25]

Based on a close scrutiny on a variety of interactions between participants or entities in Squliq Atayal events, types of force structures can be reduced to three, which are mostly identical to three force construals proposed by Langacker (2002:244) and are distinguished in terms of force sources or ways of force acting upon the intrinsic undergoer(s) of any events. (4.3) elaborates on the three types:

(4.3) a. An absolute force structure[26]: It is used in a situation in which a participant
    or an entity (namely an intrinsic undergoer,) is simply viewed in relation
    to some domain or setting, and the setting can be realized as having force
    in support of the existence of the participant or the entity in, on, or above

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[25] See Johnson (1987:45-8) for more details on the two and other five force structures.
[26] 'Absolute' is a term used by Langacker (2002).

it (e.g., *Mary stays in her room* and *Roses are in a vase*.)

b. A self-induced force structure: It is used to conceive a requisite force as being drawn from a participant's or an entity's own internal resources. For example, in a party-inviting event, the invited one is consider having potential to attend or not to attend the party (cf. The *self-moving* schema discussed in Section 7.6 in Chapter 7). Potential as such is the requisite force. Likewise, in a chasing event, the one being chased is also considered as having moving potential. Another example is a scolding event. In the event, the one scolded is taken as having a possibility to react like crying or defending for himself or herself in Squliq Atayal cultural domain. Note that, virtually, an external-driven force does affect the participant or entity in question (i.e. the undergoer); however, the degree of force is not as strong as that in the last force structure type, and it is the undergoer's volition that determines whether to perform a specific act or not.

c. An external-driven force structure: It emerges from the experience of being moved or changed by an external, explicit force. For example, a baseball's being thrown to a hitter by a pitcher, or nuts getting cracked in a nutcracker and so on.

The three types of force structure can be diagrammed in terms of (i), (ii), and (iii), respectively, in Fig. 4.2 below:

(i) An absolute force structure   (ii) A self-induced force structure   (iii) An externally-driven force structure
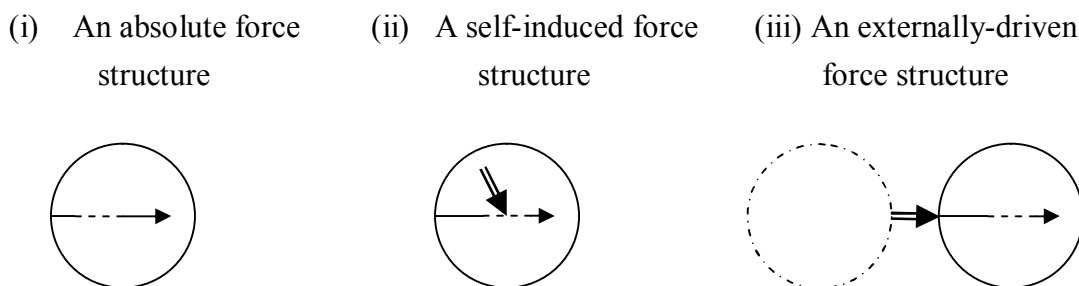
Fig. 4.2: Three types of force structures (Langacker (2002:245 (Figure 11)))

In Fig. 4.2, a circle stands for the affected participant or entity (i.e. the intrinsic undergoer) in an event, a discontinuous arrow is used to signify a processual change on

the participant, a double-lined arrow represents a force acting upon the participant, and

a dash-lined circle represents an external force.

Going back to the case in Squliq Atayal. Preliminary results of the pairings

between schemas found in the languages and force structures are displayed in Table 4.1:

Table 4.1: Results for the parings of force structure and schemas

Force structure	Schema	Verb class of instances
(i) An absolute force structure	1. Indivisibility schema	*-an* class
	2. Possession schema	*-an* class
	3. Mediation schema	*-an* class
	4. Fixedness schema	*-an* class
(ii) A self-induced force structure	1. Self-moving schema	*-un* class
	2. Cognition schema	*-un* class
	3. Stimulus schema	*-un* class
	4. Reciprocation schema (restricted to events in which a responder as the highlighted)	*s-/-un* class
(iii) An externally-driven force structure	1. Placement (I) schema	*-an* class
	2. Placement (Ⅱ) schema	*-an* class
	3. Removal schema	*-un* class
	4. Transformation schema	*-un* class
	5. Taking schema	*-un* class
	6. Gathering schema	*-un* class
	7. Causative motion schema	*-un* class
	8. Pushing schema	*s-* class
	9. Generation schema	*s-* class
	10. Cause schema	*s-* class
	11. Conveyance schema	*s-* class
	12. Reciprocation schema (restricted to events in which a transferred content as the highlighted)	*s-* class

Since force can be associated with the notion of aspect, the issue of force structure may

be more complex in Squliq Atayal and I will leave the issue for further research.

4.4 Grammar as an inventory of symbolic units: Talmy's Figure-Ground dichotomy

Talmy (1978; 2000) indicates that an event can be conceptualized as involving two objects relating to each other in space and each is taken as carrying to the whole event a distinct and fundamental cognitive function. These two objects are termed Figure and Ground, with the latter anchoring the former in a spatial, temporal, or causal situation (Talmy 2000:312). The sentences below exemplify these categories, which are in a spatial, anchoring relation.

(4.4) a. Roses are in a vase.
       b. A black horse gallops in the wood.

In (4.4a), the object specified by *Roses* functions as Figure, while that specified by the nominal *a vase* is set up as a reference point, i.e., Ground, for establishing the location of roses. Likewise, (4.4b), a moving object 'a black horse' is conceptualized as Figure with its path characterized by a stationary setting 'wood'. Table 4.2 is a set of characteristics for Figure and Ground, given by Talmy (2000):

Table 4.2: Characteristics for Figure and Ground (Adapted from Talmy 2000:315 (9))

Characteristics		Figure	Ground
A. Definitional characteristics		Has unknown spatial (or temporal) properties to be determined	Acts as a reference entity, having known properties that can characterize the Figure's unknowns
B. Associated characteristics	B1	More movable	More permanently located
	B2	Smaller	Larger
	B3	Geometrically simpler (often point-like) in its treatment	Geometrically more complex in its treatment
	B4	More recently on the scene/in awareness	More familiar/expected
	B5	Of greater concern/relevance	Of lesser concern/relevance
	B6	Less immediately perceivable	More immediately perceivable
	B7	More salient, once perceived	More backgrounded, once Figure is perceived
	B8	More dependent	More independent

As Talmy noted, the definitional characteristics as well as the last five associated ones (i.e., B4 to B8) involve the schematic system of attention. Compared with the Ground, the Figure is the focus of attention of the speaker, as evidenced in Talmy's precedence principle: "the Figure has syntactic precedence over the Ground" (Talmy 2000:344). In (4.4), the Figure (*roses* or *a black horse*) is subject and the Ground, e.g., vase and wood, is an oblique object. (4.4) is a nonagentive clause. Talmy further demonstrates how the principle applies to agentive clauses like (4.5):

(4.5) a. I gave flowers to the young lady.
       b. I gave the young lady flowers.

In (4.5a), the object specified by *flowers* is the Figure and that expressed by the nominal *the young lady* is the Ground. Talmy assigned grammatical relations to nominals in (4.5) in this way: *I* is Agent, *flowers*, direct object, and *the young lady*, oblique object. In (4.5a), we see again how the Figure precedes the Ground syntactically and psychologically. In (4.5b), due to some discourse requirement, the Ground is verbalized before the Figure. But, relatively speaking, (4.5a) is a basic expression, while (4.5b) is not.

Now consider the Squliq data in (4.6) below.

(4.6)
a.   Q: cyux   inu'   qu'   phpa'?
           EXT   where   NOM   flower
           'Where are (the) flowers?'

      A: wal=mu   s-biq   sa   ciwas   la'.
          ASP=1SG.GEN s-give   LOC   PN   FP
          'I sent (them) to Ciwas.'

b.   Q: swa'   mqas   qu'   ciwas?
           why   m.happy NOM   PN
           'What is Ciwas happy about?'

      A: bali' nanu'   ga', wal=mu   biq-an   qutux   phpa'
          NEG what   TOP ASP=1SG.GEN give-an   one   flower
          qu'   hya'.
          NOM   3SG.NEU
          '(That is) because I sent her a bouquet of flowers.'
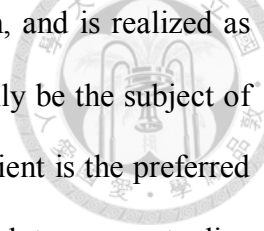
We can easily observe from (4.6) that different perspectives lead to two different clause types regarding the 'giving' frame. In (4.6a), the perspective is placed on flowers; as a result, a *s-* clause type is employed and the gift, i.e., flowers, is the subject; in (4.6b),

141

Ciwas is the concern of the speaker in the constructed conversation, and is realized as subject of the *-an* verb, *biq-an* 'give'. Since gift and giver can equally be the subject of a clause, this is different from the case in English in which the recipient is the preferred choice for subject in a giving frame. In spite of this, ways used to conceptualize recipient and giver in the two languages are identical. In Squliq Atayal, the transferred object specified by *phpa'* is Figure, while Ciwas, the destination of the motion of flowers, is Ground. Related to our main concern in this study, i.e., verb classification, is the idea that for the verb *biq* 'give', in terms of its non-actor voice forms, it then can be classified as an *s-/-an* composite verb type, since the Figure subject occurs in the *s-* clause and the Ground subject in *-an* clause (cf. Section 9.2 in Chapter 9). This leads to the following observation: the *-an* form of a verb is used by the speaker to highlight a Ground participant and the *s-* form is to highlight a transferred Figure in discourse.

But what about the case of the *-un* form? Consider (4.7):

(4.7) Q: wal inu'   qu'   btunux   ka   m\<n>aki'   sa   tuqiy
              ASP where   NOM   rock   LIG   m\<PST>exist   LOC road
              la'.
              FP
              'Where is the rock that (happened to be) in (the middle of) the road?'

    A: wal try-un   na' p\<t>zyaw   sa   kyahu'
              ASP roll.down-un   GEN ACTRNMZ\<VZR>thing   LOC underneath
              tuqiy   la'.
              road   FP
              'Workers rolled (it) down the road.'

In (4.7), the topic of the speaker's verbalization is the rock, and in the following response sentence, the topic serves as the subject of the clause in which the main verb is *try-un* 'roll', the *-un* form of the verb *turuy* 'roll'. The subject, *btunux ka m\<n>aki' sa*

tuqiy 'the rock in the middle of the road', is interpreted as the Figure with *kyahu' na'*

tuqiy 'the underneath of road' as the Ground. In this sense, then, the Figure is the

subject of the *-un* form of the verb *turuy* 'roll'. The question is: Can we hold that the

Figure is the subject of the *-un* form of all the verbs? We think the answer is yes.

Talmy identifies another type of Figure, termed meta-Figure, and also another type

of Ground, termed meta-Ground. That is, according to Talmy (2000 (I):331), an object

can be realized, at a more analytical level, as a single larger object comprised of

numerous non-discrete components; due to their non-discreteness, these components

can be interpreted as the objects 'moving or located' with respect to each other, leading

to a shape change of the larger object, even though activities performed between them

are specified by a single lexical item. These imagined components constitute a

composite Figure-Ground entity. An example for the composite Figure-Ground entity is

the noun *balloon* in (4.8).

(4.8) (Talmy 2000 (I):331 (5a))
The balloon puffed out./The balloon expanded into a round shape.

The motion in (4.8) is interpreted by Talmy this way: "the non-discrete components of

the balloon, as composite Figure, move away from or toward each other, as composite

Ground" (Talmy 2000 (I):331).

Talmy proceeds to point out that events like this and others such as *The balloon

broke*, *Her face crumpled with anger*, *Tiles cracked*, etc. can be realized as a

self-referencing Motion carried out by a meta-Figure. Talmy concludes for the more

analytic analysis in this way: "what is often thought to be the most prototypical kind of

Patient, an object undergoing a change of shape, as in breaking or crumpling, is our

meta-Figure" (Talmy 2000 (I):333). Objects like the balloon, her face and tiles are a

meta-Figure. It appears that in Squliq Atayal, subjects specified by verbs in the *-un* class can be characterized as a meta-Figure in the sense of Talmy. Consider:
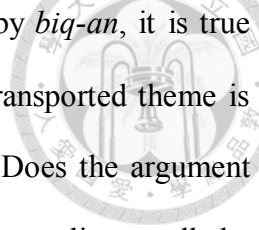
(4.9) Q: wal inu'   qu'   qhuniq=mu   la'?
        ASP where   NOM   tree=1SG.GEN FP
        'Where is my wood?'

     A: wal tbag-un ni' yumin   la'.
        ASP chop-un GEN PN   FP
        'Yumin chopped (it).'

As can be seen from (4.9), the subject of the *-un* form verb *tbag-un* 'chop' is *qhuniq* 'wood'. Components of wood undergo an action of chopping characterizable in terms similar to a meta-figure, and the act of chopping results in changes of the shape of the wood. This observation also applies to the subject *qulih qasa'* 'that fish' of *niq-un* 'eat' in (3.1b) in Chapter 3 (see Section 3.1).

As mentioned above, *qaniq* 'eat' belongs to the *-un* class and a typical transitive eating event involves the affectedness of food that is eaten, which is analogous to shape change. In the standard customary analysis, the subject *qulih qasa'* 'that fish' is categorized as a Patient. But, in terms of Talmy's analysis, the subject is conceptualized as the Figure, or more precisely, a meta-Figure, much like how the balloon is conceptualized in (4.9). In other words, the subject of a transitive eating event encoded by the *-un* of *qaniq* 'eat', is a Figure.
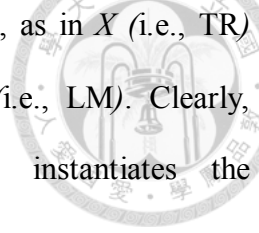
A similar analysis applies to the rock-rolling event in (4.8). The rock undergoing a change of location has the semantic role of a Theme, but in terms of Talmy's analysis, it is a Figure. Either Patient or Theme can be realized as a Figure, and both can function as the subject specified by the *-un* form of a verb.

144

As for the *-an* form, in the case of the giving event encoded by *biq-an*, it is true that the subject there is conceptualized as the Ground, while the transported theme is conceptualized as the Figure. A question then arises at this point: Does the argument that the subject conceptualized as the Ground in the *biq-an* clause applies to all the verbs in the *-an* class? Our answer is positive. We will elaborate on this point in later sections, but at this point, we will examine the realization of the undergoer subject in a perceptual event of seeing.

A typical perceptual event of seeing can be characterized in this way: An object perceived triggers attention from a perceiver. Directing attention to the perceived object can be analogous to object transfer, though it is more abstract and many details are left unspecified. Attention then is conceptualized as the Figure and the perceived object as the Ground. The latter is selected for undergoer subject in a typical transitive perceptual event. Thus it makes sense to classify *kita'* 'see' into the *-an* class.

Before ending this section, it should be useful to comment on what is considered to be important differences between Talmy's Figure/Ground distinction and Langacker's trajectory/landmark asymmetry. In Langacker's framework, trajector is defined as the figure in a relational profile, and landmark as the other salient entity (Langacker 1987:231). In another context, the term trajectory (tr) is defined as the entity located relative to the other in a relational predication; a landmark (lm) is a point of reference for computing the position of the trajectory (Langacker 2002:36). That is, Langacker's trajectory/landmark asymmetry instantiate the figure-ground relation. There are similarities as well as differences between the two sets of theoretical concepts. One commonality is the anchoring relation. Talmy's framework maintains the relation, namely, the movement or state change of the Figure entity is anchored by the Ground entity. In Langacker's framework, the "landmark" (lm or LM) provides a reference

145

point with respect to the "trajector" (tr or TR) which is evaluated, as in *X (*i.e., TR*)* *equals Y (*i.e., LM*)* or situated, as in *X (*i.e., TR*)* *is below Y (*i.e., LM*)*. Clearly, Langacker's trajectory/landmark asymmetry in some sense instantiates the figure-ground relation.

Second, both sets of concepts may be said to underlie the subject/object distinction. For Talmy, the Figure is subject and the Ground is object. Likewise, for Langacker, the subject of a relational predication is the figure (e.g., *Bach* is the figure in *Bach wrote a lot of composition*) (Langacker 1987:187) and, more persuasive is the cross-linguistic tendency for the trajector to correspond to the figure, and thus to a clausal subject, and the landmark to a clausal object (e.g., *a lot of composition* in *Bach wrote a lot of composition*).

What are the differences? One difference has to do with the degree of the fit with Gestalt psychology. According to Talmy, his Figure and Ground, though taken from Gestalt psychology, have peculiar linguistic consequences; this is why Talmy rewrites them with capitals. This departure leads to a subject/object inverse for the Figure and Ground, as in (4.8). Therefore, the clausal subject is not the Figure exclusive; instead, the Ground can also serve as the clausal subject. Talmy's observation like this can be used to account for the interesting voice marking system found in a language like Squliq Atayal.

In contrast, Langacker regards any trajector as a figure "standing out" from the background provided by other elements (i.e., landmarks) (1987:232). The standing-out image results from the intrinsic salience of a trajectory. At the level of linguistic structure, by virtue of his proposal about subject as the head of a profiled action chain, the trajector always occupies the initial position of a clause.[27] Consider (4.10):

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[27] A profiled action chain refers to a series of forceful interactions, each involving the transmission of

(4.10) (Adapted from Langacker 2008:369 (12a-c))

    a. Floyd broke the glass with a hammer.

    b. A hammer broke the glass.

    c. The glass broke.

Either the agent *Floyd* in the active voice construction (4.10a), the instrument *A hammer* in (4.10b), or the patient *The glass* in the absolute intransitive construction (4.10c) can be chosen as the subject, i.e., the trajector. In other words, unlike Talmy who also chooses the Ground as the subject, Langacker never imposes the subject status on the landmarks of a profiled predication. In Langacker (2008:381-383), he simply equates any focused element, i.e., the argument preceded by *ang* of a clause in Tagalog, with the trajector. But a simple equation like this proves to be not useful at all if one is to undertake a study on verb classification. I personally find Talmy's Figure/Ground alignment more in tune with the classification of verbs and to clausal structures in Squliq Atayal. The Figure/Ground alignment can be interpreted in a way that helps us understand the relation of participants in an event is their spatial deployment, and then the speaker's perspective comes into play to determine the use of a certain UV construction. For example, if we wish to make the Figure participant as the more salient entity, the construction is either an *-un* construction or a *s-* construction, otherwise, it is an *-an* construction used to manifest the salience imposed on the Ground participant in an event.

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energy from one participant to another. It is an additional archetypal conception of Langacker's billiard-ball model. For more discussion on the conception of action chain or the billiard-ball model, please refer to Langacker (2002, 2008).

CHAPTER 5
METHODOLOGY: EVENT FRAMING AND FOUR TYPES OF CONSTRUCTIONS USED FOR VERB CLASSIFICATION
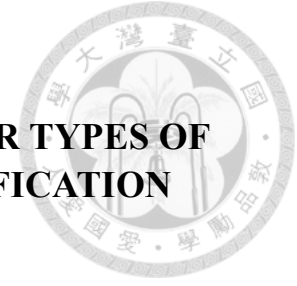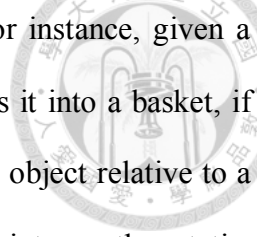
5.1 Introduction

Verb classification is established based on the notion that a certain set of verbs has the same argument structure and the referents of their arguments enter into similar or identical schemas. In short, it is the argument structures of verbs and the schema together determining the types of verbs. Event schematization (i.e., Johnson's (1987) theory of image schema) and argument structure of a verb are basic to verb classification. The following discussion consists of three parts. The first part involves the theoretical framework I adopt for the preset study. Since I have elaborated the issue in Chapter 4, in this chapter, I briefly introduce how such a cognitive framework is applied to the understanding of an event and the participants' relationship. In the second part, I examine a special construction, i.e., the *blaq* UV *qu'* O construction (abbreviated as the *blaq* construction), which can be a reliable indicator of the morphosyntactic relationship between an UV voice form and its intrinsic undergoer subject; in the meantime, it can be observed that a full understanding of the construction also needs a cognitive perspective (i.e., a constructional approach). Since the construction has never been identified in previous studies, I undertake a detailed analysis of it in this chapter. In the last part, I explain why a comparison of four construction types is needed for the realization of argument structure of a verb.

5.2 Event framing
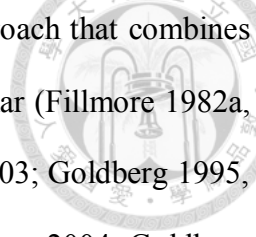
As mentioned, a schema refers to the spatial configuration of participants in a scene based on their interaction. The naming of a spatial configuration, or a schema, is

determined by how the focused participant is relative to others. For instance, given a scene in which a farmer extracts a carrot from the soil and then puts it into a basket, if the attention is directed at the carrot, it is first realized as a removed object relative to a static, container-like object, i.e., soil, and then as a conveyed object into another static, container-like object, i.e., a basket. Two schemas are henceforth identified, a removal schema and a conveyance schema. In determining a schema, the focused participant's concept is also determined, i.e., either Figure or Ground (Talmy's (2000) Figure-Ground dichotomy). Briefly speaking, a focused participant cannot be understood independently of a frame with which it is associated. Frame, as mentioned earlier, is a notion proposed by Fillmore (1976). A frame relates the elements and entities associated with a particular culturally scene from human experiences. For example, for a seeding event, the grammar of Squliq Atayal determines that there is no need to specify 'seed' as a participant and that one needs only to identify two focused participants, namely an actor and a field, each encodable as the subject in two separate constructions. That is, to determine the type of a verb, we employ the notion of frame to describe a target event in great detail; by means of this, not only the concept of a focused participant is determined, but also the relationship between participants is schematized.

5.3 The *blaq* UV *qu'* O construction

In this section, I take up the *blaq* UV *qu'* O construction. I hope to answer the question *In which context the language speaker uses this construction?* in order to come to a better understanding of the nature of verb classification. I propose that the emergence of the construction in question is to fulfill a pragmatic need, namely, for the speaker to perform an illocutionary act of evaluation of a specific undergoer in a frame (in the sense of Fillmore (1968a, 1975, 1977a, b, 1982a, b, 1985, 1986). Such a

149

distinctive pragmatic function can be uncovered in terms of an approach that combines insights derived from both frame semantics and construction grammar (Fillmore 1982a, 1984, 2008; Fillmore and Atkins 1992; Atkins 1994; Atkins et al. 2003; Goldberg 1995, 2001, 2002, 2005, 2006, 2010; Fillmore et al. 2003; Fried and Östman 2004; Goldberg and Jackendoff 2004; Levin and Rappaport Hovav 2005; Rappaport Hovav and Levin 1998; among others). First, at the surface level, the construction can be analyzed as a complex sentence comprised of a stance verb *blaq* as the matrix verb of the construction and a phrase UV *qu'* O as the verb's complement, similar to the English sentence type *a speech act verb* (like claim, say, declare etc.; cf. Searle 1969; Friginal 2009; Blackwell 2010) *plus a complement construction*. In brief, the formation of the construction is via complementation. Furthermore, it can be found that the construction reflects event complexity. The use of the *blaq* UV *qu'* O construction is mainly activated by three chained causal subevents. They are a causative event, a resultative event, and an illocutionary commending event; the former two are abstract and unspecified, but most importantly, the two can be regarded as preconditions for the commending act. This idea can be supported in terms of a constructional analysis. As proposed by constructional grammarians, "a given sentence is not always just a projection of its lexical head but incorporates 'added' elements in a systematic way" (Boas and Fried, 2005:4). In other words, either a verb's or a constructional meaning is entirely represented in a semantic frame.

In the complex event, the undergoer (i.e., the O role in the construction) keeps its profiled status in a series of utterances, namely, the participant encoded as the O grammatical role in the *blaq* construction is coreferential with the subject in both the preceding causative and resultative event. As a result, via a constructional analysis in the following discussion, the *blaq* UV *qu'* O construction's pragmatic function and its

150

syntactic pattern's category can be identified. Finally, an intrinsic morphosyntactic relationship between an undergoer and a certain UV form of a verb can be obtained from the construction.
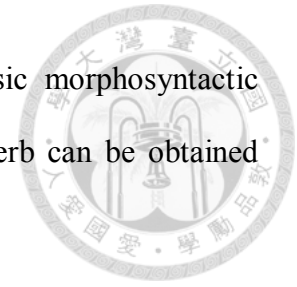
5.3.1 A constructional analysis of the *blaq* UV *qu'* O construction: A demonstration

Let us first consider the following connected stretch of discourse in which Ciwas is steaming some glutinous rice and it tastes delicious.

(5.1)

a. m-hnuk   balay   qu'   s<in>klw-an   sumul
    m-soft   true   NOM   <PST>steam-LOCNMZ   glutinous.rice
    ni'   ciwas.
    GEN   PN
    '(All) the glutinous rice Ciwas steamed was soft.'

b. hera'   ga',   wal=nya'   pskl-un   qutux
    yesterday   TOP   ASP=3SG.GEN   steam-un   one
    s<n>bw-an   m<n>iq=mu   sumul;
    <PST>wrap-LOCNMZ   m<PST>give=1SG.GEN   glutinous.rice
    'Yesterday, she steamed one steamer of glutinous rice I gave her.'

c. in-liq-un=nya'   balay   pskulu';
    PST-good-un=3SG.GEN   true   steam
    'She steamed carefully.'

d. masuq   lga',   p-qniq-an=saku'=nya'   qu'
    m.finish   FP:TOP   CAUS-eat-an=1SG.NOM=3SG.GEN   NOM
    sumul.
    glutinous.rice
    'After finishing (steaming), she let me taste ((the) glutinous rice).'

e. yasa   m-tnaq   m-hnuk   lozi';
    that.way   m-the.same   m-soft   again
    '(The steamed glutinous rice) has the same softness as that she steamed

151

before.'

f. blaq   balay   niq-un;
    good   true   eat-un
    '(The glutinous rice) tastes delicious. (Lit., It is good to eat (the glutinous rice).)

g. baq   balay   pskulu'.
    can   true   steam
    '(Ciwas) is very skilled in steaming (glutinous rice). (Lit., (Ciwas) really can steam (glutinous rice)).'

The scenario in (5.1) is comprised of seven sentences; among them, four are used for state description in which either the actor (i.e., (5.1g)) or the undergoer (i.e., (5.1a), (5.1e) and (5.1f)) is the profiled participant, while the other three are designed for action performance (i.e., (5.1b), (5.1c) and (5.1d)).

Causative events are described in (5.1b), (5.1c), and (5.1d). (5.1e) expresses the resultative event. (5.1f) is an evaluating act done for the actor, and (5.1g), along with (5.1a), are for evaluating the undergoer.

In terms of Fillmore's frame semantics, the scenario represented in (5.1) is a semantic frame. In this frame, adequate as well as indispensable information with respect to the reason why the speaker uses the *blaq* UV qu' *O* construction in (5.1f) is provided. The seven sentences constitute a complex event structure. Information includes who the actor is, who the undergoer is, who the speech act participant is, what instruments or in which manner the actor acts on the undergoer, and finally in which condition the illocutionary act participant indirectly commends the glutinous rice made by Ciwas to the addressee.

The frame can be represented in terms of Talmy's (1976, 1985, 1988) CAUSAL CHAIN, as displayed in (5.2):

(5.2) Causal chain for the event structure specified in (1)

act on		change		evaluation made by

Ciwas ⟶ glutinous rice ⟶ glutinous rice ⟶ the speaker
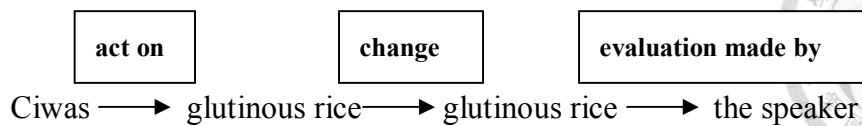
(5.2) can be read as: Ciwas acts on glutinous rice by steaming, and, that causes a change of the rice, and based on the intermediate two causal events (steaming and eating) and one resultative event, the speaker ends the scenario by commending Ciwas for her glutinous rice.

In (5.1) and its schematic representation (i.e., (5.2)), the actor and the undergoer are in turn the profiled in respective sentences. However, if we focus only on the undergoer, a remodeled causal chain can be given as in (5.3):

(5.3) Causal chain for the event structure encoded by the *blaq* construction in (5.1)

act on		change		evaluation made by

(Ciwas) ⟶ glutinous rice ⟶ glutinous rice ⟶ the speaker
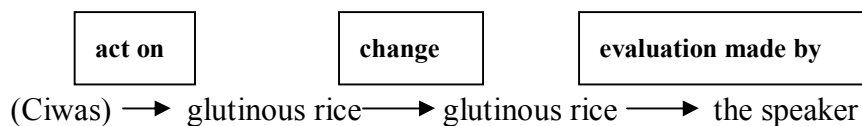
That is, in (5.3), the actor is unspecified; as a result, the reading for the chain then turns: glutinous rice is acted on by someone that causes a change of the rice, and in the end of the scenario, the speaker evaluates the product positively, since (5.3) expresses a scenario where the actor participant is not overtly expressed, the causal chain can be paraphrased as (5.4):

(5.4) The glutinous rice is steamed in such a way that it is evaluated positively (it tastes delicious).

In (5.3) and its paraphrase, (5.4), it is quite obvious that the undergoer, *sumul* 'glutinous

rice', is the profiled participant, and that corresponds to the Atayal clausal representation that the undergoer is the clausal subject, as evidenced in the five successive sentences from (5.1b) to (5.1f). Based on the analysis thus far, it is easy to see that the *blaq* UV *qu'* O construction, as shown in (5.1f), is a condensed syntactic representation schematized in (5.5):
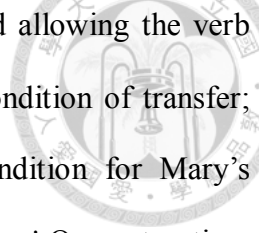
(5.5) a stance verb '*blaq*' + a reduced complement clause

As pointed out by Hare (1952), the primary function of the word '*good*' is to commend and the meaning of 'good' has two types of illocutionary acts, commending and evaluating; as a result, in (5.5), the word 'good' functioning as the speaker's doing an illocutionary act of either evaluating or commending makes sense. Searle (1969) proposes a similar analysis for the word 'good'. As for why it takes a complement clause, the reason is also provided above (e.g., (5.3) and (5.4)). A paraphrase for (5.5) is given in (5.6):

(5.6) *I*, the speaker, now commend the undergoer when she is affected by some event

As can be seen from (5.6), a speech act performance and a description on how an undergoer is affected are verbalized in the same utterance. Thus far, we may notice that without preceding events encoded in (5.1b) through (5.1e), the speaker cannot use the construction in question. This idea applies to the approaches developed by other construction grammarians.

In Goldberg's Construction Grammar (Goldberg 1992, 1995, 2010:55), a ditransitive construction has roughly the meaning of transfer, i.e., 'X (intends to)

154

CAUSE Y to RECEIVE Z', then this construction can be analyzed allowing the verb like *bake* in *Mary baked her daughter a cake* to designate a precondition of transfer; that is, the preparation of the to-be-transferred cake is a precondition for Mary's transferring the cake to her daughter. Going back to our *blaq* UV *qu'* O construction, causative events and resulative events can be interpreted as preconditions for the illocutionary act of commending.

Another similar analysis is Levin and Rappaport Hovav (1995) and Rappaport Hovav and Levin's (1998, 2001) event structure (i.e., the event-structure-to-syntax mapping). The sentence *The couple waltzed out of the room* is an English verb-result XP combination. In terms of the event structure analysis, it describes a complex event consisting of two subevents, an event of waltzing encoded by the verb and an event of traversing a path that ends outside the room, represented by the result XP (Rappaport Hovav and Levin 2001:775). What matches the case in Squliq Atayal is the idea that the *blaq* UV *qu'* O construction can be paraphrased as consisting of two subevents, a speech act event and a causal event, along with preceding 'added' unspecified but inferable events.

The meaning of a construction arises from generalizing over many coherent verbs or events, which are used to constitute a semantic frame. This is the tenet of Construction Grammar.

At this point, the grammatical status of the *blaq* UV *qu'* O construction is like a complement construction. As mentioned in (5.5), it is a stance verb *blaq* 'good' plus an incomplete complement clause. The construction is similar to the following English sentence (5.7):

(5.7) a. I commend the boy on his bravery.
       b. I think Sue is a vegetarian.

155

c. It seems to me that John is the right person for the job.

In (5.7), it can be observed that the speaker is performing a variety of illocutionary acts. The 'main' verb, *commend*, *think*, or *seems*, is the matrix verb for the following complement, such as *the boy on his bravery*, *Sue is a vegetarian*, or *John is the right person for the job* respectively. In this sense, (5.1f) can be paraphrased as:

(5.8) I really commend Ciwas's glutinous rice for its taste.

5.3.2 What the *blaq* UV *qu'* O construction is not

In this section, I argue that the *blaq* UV *qu'* O construction is neither a serial verb construction (SVC), nor an adverbial verb construction (AVC), nor an auxiliary verb construction (AuxVC). I first address the issue of how the *blaq* construction differs from a serial verb construction.

5.3.2.1 *Blaq* UV *qu'* O construction not a serial verb construction (SVC)

First, a *blaq* UV *qu'* O construction cannot be accounted as a serial verb construction. There are at least three reasons for this exclusion. First, according to Crowley (2002:10), SVCs are "syntactic constructions involving what can be analyzed at the surface level as single clauses, but which are nevertheless expressed by means of multiple predicates"; in contrast, a *blaq* UV *qu'* O construction involves two clauses. Second, argument-sharing is another distinctive characteristic of SVCs (Baker 1989; Collins 1997; Aikhenvald 2006); however, the actor in the event specified by the second verb in a *blaq* UV *qu'* O construction can be generic, while the actor performing a commending act is always the first person speech act participant. Third, as proposed in M. Y. Yeh and S. Huang (2009), in Atayal SVCs, the second verb must be in an AV form, in contrast to the *blaq* UV *qu'* O construction where the second verb is always an

156

UV. (5.1c) and (5.9) are examples for SVC:

(5.9) (Sinica Archive: (11-025-c))

liq-un=su   mita'   qu'   a   p<in>hkny-an
good-un=2SG.GEN m.see   NOM   FIL   walk<PST>walk-LOCNMZ
nqu'   ts<in>ring-an.
GEN   <PST>begin-LOCNMZ
'You should observe well that what people had experienced at the beginning.'

Liq-un in either (5.1c) or (5.9) is an adverbs-like verb used to specify the manner in which an action like the steaming action in (5.1c) or the seeing action in (9) is carried out.

5.3.2.2 *Blaq* UV *qu'* O construction not an adverbial verb construction (AVC)

Second, the *blaq* UV *qu'* O construction is not an adverbial verb construction proposed by Chang (2009). As pointed out in Chang (2009:439), "AVC is a typologically unusual construction in which adverbials expressing manner, iteration, frequency, and so forth, surface as higher verbs in syntax". (5.10) illustrates AVCs for Tsou:

(5.10) (Chang 2009:443 (7a); original data, glossing, and translations)
a. Mi-'o   **pasu-po-poha'o**   (pasunaeno).
    AV-1SG   sing-RED-slow.AV   sing.AV
    'I sang slowly.'

b. Os-'o   **pasu-po-poha'v-a**   (pasunaev-a).
    UV-1SG   sing-RED-slow-PV   sing-PV
    'I sang (the song) slowly.'

As can be seen from (5.10), the manner adverbial verb *poha'o* 'slow' can be in either an

AV or a PV form, and under the concord restriction, its following lexical form should occur in the same voice form. This differs from the Atayal *blaq* UV *qu'* O construction, where *blaq* is in bare form and the following verb is in a UV form.

5.3.2.3 *Blaq* UV *qu'* O construction not auxiliary verb construction (AuxVC)

Blaq may function like an auxiliary verb[28]; but note that when it is used as an auxiliary, it must appear in a totally different construction, and thus has very different meaning, as in:

(5.11) blaq=nya'   niq-un qu'   t<n>ahuq   ni' ciwas.
       MOD=3SG.GEN   eat-un NOM   <PST.OBJNMZ>cook   GEN PN
       'He likes to eat Ciwas's dishes.'

In (5.11), *blaq* means 'like to' and functions as an attitudinal auxiliary verb for the speaker to express his or her attitude toward the proposition conveyed in the complement clause. No evaluating or commending act is possible.

At the structural level, (5.11) is identical to (5.12), (5.13), and (5.14):

(5.12) aki'=naha'   'sa-n   hbyaw   ga', (i)yat=naha'
       MOD=3PL.GEN go-an   chase   TOP   NEG=3PL.GEN
       cin-hebang   rwa'.
       CIN-measure FP
       'Though they wanted to chase (boars), it wasn't the territory where they could step into.'

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[28] An auxiliary verb is a grammatical word used to supplement information like tense, aspect, modality, or polarity on the event specified by the following lexical verb (cf. Egerod 1966:348). In addition to the name 'auxiliary', Egerod (1966) and Rau (1992) give lexemes with the same grammatical function like a negator *ini'*, a progressive marker *cyux/nyux*, an affirmative marker *si'* etc. different names. These names include quasi verbs, verb particles, and modal adverbs.

(5.13) Batad Ifugaw (Newell 1993:21; cited in Reid and Liao 2004: 449 (24b))

Adi	lahhīnon	Umāngob	nan	batu	ede.
NGTV	separate	Umāngob	DET	stone	that

'Umāngob won't separate the stones from that (soil).'

(5.14) Ivatan (Larson 1986:11; cited in Reid and Liao 2004: 452 (52))

Oyod=na	sira	a	chinasi	ni	ina	o
true=GEN.3S	NOM.3P	LIG	pity	GEN	mother	NOM

manganak=na=ya.
children=GEN.3S=that
'Mother truly pitied her children.'

In (5.12), *aki'* means 'want' and, like *blaq* in (5.11), is also an epistemic auxiliary verb in Squliq Atayal. In (5.13), according to Reid and Liao (2004), *adi* is an aspectual auxiliary verb.[29] (5.14) illustrates a sentence with a less closely bound auxiliary verb; in this case, the auxiliary verb *oyod* 'true' requires a ligature *a* between itself and its dependent "main" verb *chinasi* 'pity' (Reid and Liao, 2004:451).

To summarize briefly, we have shown that the *blaq* UV *qu'* O construction differs from either SVCs, or AVCs or AuxVCs. Namely, though there is a verb sequence in the construction in question, *blaq* cannot attract a pronominal clitic, unlike that in the other three constructions. It is a complex construction consisting of a speech act verb *blaq* and an incomplete complement clause. The reasons for the incompleteness have also been provided in foregoing discussion, and meanwhile, insufficient information out of the

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[29] Reid and Liao (2008) proposes two characteristics of auxiliary verbs in Philippine languages are: (i) they "require the following verb to agree with them in transitivity, and sometimes also in tense or aspect", and (ii) "they attract to themselves any second-order pronominal or adverbial clitics, and sometimes other pronominal forms that would otherwise be complements of the following verb". The negator *agguy* in Batad Ifugaw, the future marker *'əsá* in Guinaang Bontok, and the modal marker *ka-* 'must'in Botolan Sambal are instances for auxiliary verbs enumerated in their paper. But there is some morphosyntactic difference regarding auxiliary verbs between Squliq Atayal and Philippine languages. A conspicuous difference is on the agreement in transitivity and tense or aspect as well between an auxiliary verb and its following lexical verb. No agreement of the sort occurs in Squliq Atayal, but that is not the case in Philippine languages. For a detailed discussion on auxiliary verbs, please refer to Reid and Liao.
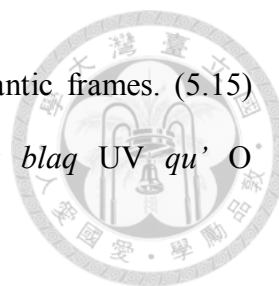
incompleteness can also be supplied from the perspective of semantic frames. (5.15) illustrates a frame used to activate the speaker using another *blaq* UV *qu'* O construction, *blaq yal ktan qasa'.*

(5.15) (gaga' na' Atayal: 145-153)

cyux	mqwas	qu',	cyux	iy	kyaw	kyaw
ASP	m.sing	NOM	ASP	FIL	roar	roar

para'		qasa'	lga',	kyal-un=nya'
Formosan.barking.deer	that	FP:TOP	speak-un=3SG.GEN

maha'.	hcyux	iy,	cyux iy	kyaw	nanu'	sa	la'.
QUOT	ASP	FIL	ASP FIL	roar	what	that	FP

cyux	ciliq	la'	ay,	para'		ga'	ma'	rwa'.
ASP	capture	FP	FP	Formosan.barking.deer	TOP	QUOT		FP

blaq	yal	kt-an,	qasa'.
good	very	see-an	that

'The Formosan barking deer was roaring; he (i.e., the old man) said the Formosan barking deer was hunt. That is really (a) good (TV program) worth watching!'

5.3.3 The function of the *blaq* UV *qu'* O construction

Now let's go back to the question: What does the *blaq* UV *qu'* O construction suggest for verb classification in Squliq Atayal? The answer to that question has actually been implied from the preceding discussion. Consider first semantic characteristics in (5.11) and (5.15), as given in (5.16) below:

(5.16) i. The verb, either *niq-un* or *kt-an*, is inherently a transitive verb.

　　ii. The grammatical subject (i.e., *t<n>ahuq ni' ciwas* and an unspecified TV program respectively) is an undergoer.

　　iii. There is no discernible actor of the action (i.e., eating *niq-un* and seeing *kt-an*).

　　iv. The use of *blaq* is typically obligatory much as the evaluative adjective modifier *worth* or the evaluative adverb modifier *easily* is required in the

English construction like *All (of the books) are worth reading* and *The wood chops easily*.
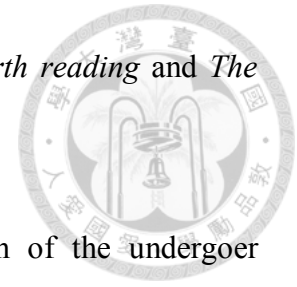
In (5.16), esp. in (5.16iv), it is easily observed that evaluation of the undergoer illustrated in (5.1) and (5.15) as a social action done by the speaker, so the voice form attested in a Squliq Atayal *blaq* UV *qu'* O construction is the default form employed to express the inherent morphosyntactic relationship between the verb and its undergoer subject. Besides, an action of this sort also implies some kind of absolute relationship between an evaluated object and an event, which is based on folk knowledge with respect to a target habitual situation. That is, people in the speech community can distinguish whether, by means of its attributes, some object is evaluated positively or not, regardless of whether an event has occurred or not. (5.17) and (5.18) are illustrations for habitual situations.

(5.17) *kita'* 'see'

khi'	balay	qu'	t<n>inun=su		galiq	qani';
thin	true	NOM	<PST.OBJNMZ>weave=2SG.GEN		cloth	this
musa'	blaq	kt-an	lukus	qa'.		
ASP	good	see-an	clothes	DEM		

'You weave the cloth in an exquisite style; (I think) the clothes will be a nice one.'

(5.18) *qaniq* 'eat'

blaq	qu'	p<in>bahuw	ka	trakis	kawas	qani';
good	NOM	<PST.OBJNMZ>plant	FIL	millet	year	this
musa'	blaq	niq-un.				
ASP	good	eat-un				

'The millet is planted well this year; (I think it) will taste delicious.'

In (5.17), it is the *-an* form of the verb *kita'* 'see' employed to evaluate clothes

uncompleted weaving yet. The positive evaluation is based on folk knowledge, i.e., an exquisite style of cloth-weaving results in a nice clothes. Likewise, in (5.18), though people don't taste the millet yet, its deliciousness is expected, given the good result of planting. Such an absolute relationship between millet-to-be-delicious and eating is morphosyntacticall realized in terms of the *-un* form of the verb *qaniq* 'eat'. At this point, we can also see that habituals are categorized as realis in the grammar of Squliq. A similar point is made in Givón (1993:171) where he states that a habitual-coded clause is as strongly asserted as realis and thus shares an important pragmatic feature of realis.

In contrast, people hardly evaluate an object based on an irrealis or a non-habitual situation, as illustrated in (5.19) and (5.20):

(5.19) *kita'* 'see'
a. A: wal=mu   suq-un   matas   la'. p-kita'=su?
        ASP=1SG.GEN   finish-un   m.paint   FP   FUT-see=2SG.NOM
        'I have finished painting. Would you like to see (it)?'

    B: kt-on=mu   kira'.
        see-un=1SG.GEN   later
        'I will see (it) later.'

b. *musa'   blaq   kt-on   qu'   ptas-an=su.
    ASP   good   see-un   NOM   paint-LOCNMZ=2SG.GEN
    'Your painting will look pretty.'

In the dialogue provided in (5.19), the seeing event in (5.19a) has not occurred yet, and *kt-on* 'see', the *-un* form of the verb *kita'* 'see', is not allowed into the *blaq* construction, as (5.19b) shows. As for *qaniq* 'eat', other than the *-un* form *niq-un*, there is no other UV voice form to encode such a core undergoer argument:

162

(5.20) *qaniq* 'eat'

a. A: p-sk-un=mu   ramat   la'.   p-qaniq=su   na'?
       FUT-gather-un=1SG.GEN dish   FP   FUT-eat=2SG.GEN   still
       'I will gather dishes. Will you eat more?'

    B: laxi' sku-i'.   niq-un=mu   kira'.
       NEG gather-i'   eat-un=1SG.GEN   later
       '(Please) don't gather. I will eat later.'

b. *musa'   blaq   niq-an   na' qu' ramat   qa'.
    ASP   good   eat-an   still NOM dish   DEM
    'The dish is going to taste delicious.'

(5.20a) with *niq-un* 'eat' is an irrealis event. Furthermore, unlike *kita'* 'see', which has two UV voice forms that differ in mood interpretation (cf. (5.13) and (5.19)), *niq-un* 'eat' is used not only in a realis event, but also in an irrealis event. (5.20b) is an unacceptable sentence, and so we know that *niq-an* 'eat' is not permitted to occur in the *blaq* construction; instead, it is used in other situations (as illustrated in (5.21) below).

The *blaq* construction is a reliable indicator of the morphosyntactic relationship between a UV voice form and its intrinsic undergoer subject as we can see from an outcome for a syntactic unit exhibiting characteristics (5.16i) to (16iv), the first two in particular. The test's validity regarding our main concern is convincing, unless the subject is an applicative argument referring to a location or an instrument, as in (5.21) and (5.22) respectively:

(5.21)

a. wal=nya'   niq-an   qu'   niq-an   qa'.
   ASP=3SG.GEN eat-an   NOM   eat-LOCNMZ   DEM
   'He ate at the restaurant.'

b. blaq   niq-an   qu'   niq-an   qa'.
   good   eat-an   NOM   eat-LOCNMZ   DEM
   '(Dishes at) the restaurant tasted delicious.'

(5.22)

a. wal=nya'   s-qaniq   qu'   kway   qa'.
   ASP=3SG.GEN   s-eat   NOM   chopstick   DEM
   'He ate with the pair of chopsticks.'

b. blaq   s-qaniq   qu'   kway   qa'.
   good   s-eat   NOM   chopstick   DEM
   'The pair of chopsticks is a good tool for eating.'

In (5.21), *niq-an qa* 'the restaurant' denoting a location is coded as the subject of either the middle construction *blaq niq-an* (5.21a) or *niq-an* in (5.21b). In (5.22), the instrument noun phrase *kway qa'* 'the pair of chopsticks' is the subject of either *blaq s-qaniq* in (5.22b) or *s-qaniq* in (5.22a). Compared with *t<n>ahuq ni' ciwas* 'Ciwas's dishes' in (5.11), it is easily noticed that either *niq-an qa'* 'the restaurant' in (5.21) or *kway qa'* 'the pair of chopsticks' in (5.22) is not an intrinsic argument of the verb *qaniq* 'eat'. That means the applicative undergoer of a verb can be safely excluded from consideration for purposes of verb classification.

The *blaq* UV *qu'* O construction is a complex construction comprised of a stance verb and a complement clause. In the *blaq* construction, the UV voice form may be taken as the default form used for expressing the inherent morphosyntactic relationship between a verb and its undergoer subject. This means that the *blaq* construction can be used as a reliable indicator to determine the verb type that a particular verb fits into.

5.4 Four types of constructions

We turn now to the question of argument structure, to the job of distinguishing the intrinsic undergoer argument(s) from other clausal arguments. The results on the
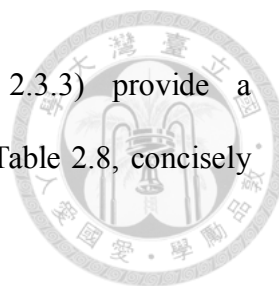
case-marking system discussed in Chapter 2 (see Section 2.3.3) provide a straightforward, reliable way for the job. Table 5.1, repeated from Table 2.8, concisely shows the results:

Table 5.1: Four types of function and use of the case markers *sa/squ'* in Squliq Atayal (repeated from Table 2.8, Section 2.3.3.4 in Chapter 2)

	Verb types	Type of *sa/squ'* NP	Type of *sa/squ'*
(1)	Most verbs (, except for existential verbs amd some motion verbs like *usa'* 'go' and *wah* 'come')	Locative NP	Loc1
(2)	Existential verbs (i.e., *maki'*)	Locative NP	Loc2
(3)	Locomotion verbs (e.g., *kahul* 'come from', *hinas* 'pass through', *usa'* 'go', *wah* 'come', etc.)	Locative NP	Loc2
(4)	Semantically-transitive verbs (e.g., *qaniq* 'eat', *panga'* 'carry on back', *si'* 'put')	Object NP	Loc2

As stated, the NP introduced by a Loc2 *sa/squ'* case marker is the argument subcategorized for the verbal predicate. That means such an argument as an intrinsic undergoer argument of a verb.

Next, we need to identify which UV form is the default for marking an intrinsic undergoer subject. Four types of constructions are examined, as shown in (5.23):

(5.23)   a. Extended intransitive clauses (EIC)
          b. The *blaq* UV *qu'* O construction
          c. Plain undergoer voice constructions (Plain UV constructions)
          d. Applicative undergoer voice constructions (Applicative UV
            constructions)

Except for the *blaq* UV *qu'* O construction, the other construction types have their

corresponding clause patterns, as discussed in Chapter 2. Consider Table 5.2 and Table 5.3:

Table 5.2: Argument profiles for clause patterns in Squliq Atayal (repeated from Table 2.18, Section 2.3.7, in Chapter 2)

	CLAUSE PATTERN	CORE ARGUMENT (case assignment; category of thematic role)			
Pattern 1.	Monadic (*m*-)V intransitive	S (nominative; actor/patient/ theme/ affectee/ content goal/location/ recipient/ experience/ conveyed theme)			
Pattern 2.	Dyadic (-)*m*-V intransitive	S (nominative; actor)	E (locative; undergoer like patient/theme/affectee/ content/goal/location/ recipient/experience/ conveyed theme)		
Pattern 3.	Triadic (-)*m*-V transitive	S (nominative)	E_O (locative; conveyed theme)	E_I (locative; location/ recipient)	
Pattern 4a.	Dyadic V-*an* transitive	A (genitive)			O (nominative; goal/location/ recipient/ experiencer)
Pattern 4a'.	Dyadic V-*an* transitive	A (genitive)			O (nominative; applicative

166

					location)
Pattern 4b.	Dyadic V-*un* transitive	A (genitive)			O (nominative; patient/theme/Affectee/content)
Pattern 4c.	Dyadic *s*-V applicative transitive	A (genitive)			O (nominative; applicative instrument, beneficiary, or cause)
Pattern 5a.	Triadic V-*an* transitive	A (genitive)		E_O (locative; conveyed theme)	O (nominative; goal/location/recipient)
Pattern 5b.	Triadic V-*un* transitive	A (genitive)		E (locative; conveyed theme)	O (nominative; goal/location/recipient)
Pattern 5c.	Triadic *s*-V transitive	A (genitive)	E_I (locative; location/recipient)		O (nominative; conveyed theme)
Pattern 5c'.	Triadic *s*-V applicative transitive	A (genitive)	E (locative; patient/theme/affectee/content/goal/location/recipient/experience/conveyed theme)		O (nominative; applicative instrument, beneficiary, or cause)

Table 5.3: Correspondences between three voice constructions in (5.23) and clauses patterns (see Section 2.3.7 in Chapter 2)

Voice constructions	EIC	Plain UV constructions	Applicative UV constructions
Clause patterns	Pattern 2	Pattern 4a, 4b, and 4c	---
	Pattern 3	Pattern 5a, 5b, and 5c	---
	---	---	Pattern 4a', 4c', and 5c'

Consider (5.23) again. EIC (5.23a) is designed for determining the number and type(s) of intrinsic undergoer argument(s). EICs refer to the clauses in Pattern2 and Pattern3 in Table 5.2. Usually, there is only one for most semantically transitive verbs, conceptualized as either Figure or Ground (i.e., the E in Pattern 2). Some take two intrinsic undergoer arguments, with one functioning as the Figure and the other the Ground (i.e., the E_I and E_O in Pattern 3), as in (5.24):

(5.24)   nyux=saku'   miq   sa   pila'   sa   laqi'   qa'.
         ASP=1SG.NOM   m.give   LOC   money   LOC   child   DEM
         'I'm giving the child (the) money.'

In EICs, the Undergoer argument is marked with a locative (Loc2) *sa/squ'* case marker, i.e., the locative NP of an existential, motion, or a semantically transitive verb in Table 5.1; thus, it is termed Loc 2 *sa-* or *squ'*-NP. In the corresponding *blaq* construction in (5.23b), it is the Loc2 *sa /squ'*-NP that surfaces as the subject, where the subject is marked with *qu'* and is termed *qu'*-NP. The voice form that occurs in (5.23b) determines the verb class of a verb, either *-un,* or *-an,* or *s-* , or *s-/-an* composite. The plain UV construction (5.23c) refers to the construction in which the subject is the

intrinsic undergoer of a verb. The plain UV construction refers to the clause in Pattern 5a, 5b, or 5c in Table 5.2.

(5.23c) includes two event types, irrealis and realis. The voice form used in (5.23b) is the one recruited to encode a realis transitive event. That is why we cannot take irrealis transitive clause into account for purposes of verb classification.

(5.23d) may be used to refer to the construction in which an applicative undergoer argument (i.e., a locative, an instrumental, or a beneficiary applicative) is the subject. It is identical to the clause in Pattern 4a', Pattern 4c, and Pattern 5c'. (5.23d) is designed as a contrast to the former three types of constructions.

We can see then that, at the level of morphosyntax, two parameters need to be taken into account simultaneously to determine the class of a verb, as given in (5.25):

(5.25)
a. **Parameter I: Intrinsic undergoer**
EIC = *blaq* construction = Plain UV (realis) = Plain UV (irrealis)≠ Applicative UV construction

b. **Parameter Ⅱ: Voice form**
EIC ≠ *blaq* construction = Plain UV (realis) ≠ Plain UV (irrealis)≠ Applicative UV construction

The Loc2 *sa/squ'* NP in an EIC is the intrinsic undergoer of a verb; when it appears in a plain UV construction, the NP takes the role of subject. This is basically what Parameter I means. What Parameter II means is that the voice form used to encode an intrinsic undergoer as the subject in a *blaq* construction must be identical to the voice form in a UV construction used for a realis event.

In the next four chapters, we examine morphosyntactic behaviours of verbs based on the two paremeters.

CHAPTER 6

THE *-an* CLASS

6.1 Introduction

In this chapter, based on three factors, i.e., the conceptualization of the undergoer, the spatial arrangement for entities in events, and the morphosyntactic representation for verbs, seven *-an* verb types in Squliq Atayal are distinguished, including *-an* verb type (1): [Undergoer as Ground in *Placement* (Ⅰ) schema], *-an* verb type (2): [Undergoer as Ground in *Removal* schema], *-an* verb type (3): [Undergoer as Ground in *Indivisibility* schema], *-an* verb type (4): [Undergoer as Ground[Figure] in *Possession* schema], *-an* verb type (5): [Undergoer as Ground in *Mediation* schema], *-an* verb type (6): [Undergoer as Ground in *Fixedness* schema], and *-an* verb type (7): [Undergoer as Ground in *Placement* (Ⅱ) schema].

6.2 *-an* verb type (1): [Undergoer as Ground in *Placement* (Ⅰ) schema]

Events encoded by *tmami'* 'pickle', *tuba'* 'poison', or *iyut* 'extinguish' can be used to illustrate a situation where an actor moves an object to another object in order to produce an effect on the latter , such as stopping a fire by hosing it down, or a river poisoned for fishing, or meat pickled with rice. In this sense, it is apparently noticed that the moved object is designated as some kind of instrument with respect to the events. From the perspective of Figure-Ground dichotomy, the moved object is equivalent to Talmy's Figure, and the object on which Figure is placed is the Ground. Once the Figure object is placed on the Ground, an intended goal in the event can then be achieved. Moreover, since the Figure is an inherent component of an event and is often implied by the semantics of verbs, Ground is left as the only undergoer that needs to be specified in

170

a transitive clause. It is the *-an* voice form that is recruited to encode a realis event of this type. As a result, verbs encoding their undergoer argument in this way are grouped into the **-an verb type (1): [Undergoer as Ground in *Placement* (Ⅰ) schema]**.

The spatial deployment for Actor, Figure, and Ground in placement events can be schematized as below:
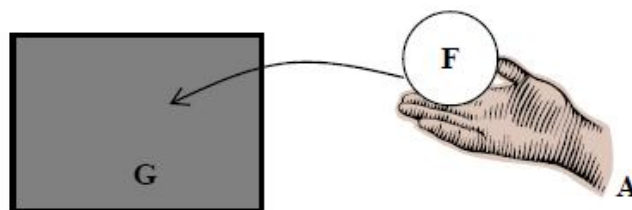
Fig. 6.1: *Placement* (I) schema

In Fig. 6.1, the hand icon stands for Actor, the ball icon, the Figure, the square, the Ground, and the arrow represents the path that the Figure travels to the Ground. Note also that shadowing the Ground entity means it is conceptually as well as structurally more salient in an event, while unshadowing the Figure entity means that the entity is not a salient participant. Thus Fig. 6.1 permits us to have an iconic understanding of the relationship holding between the Figure, the Ground and the Actor in events such as a pickling event, a fish-poisoning event, or a fire-extinguishing event etc.

Take a closer scrutiny on the verbs in the *-an* verb type (1). Verbs in this type can be divided into two groups in terms of verb-forming processes. They are verb-derived from a nominal base and a verbal base. They are two of the three types of verb-forming processes mentioned in Chapter 2 (see Section 2.3.6). By decomposing components of a derived verb, including the information entailed from the base's semantics, it facilitates our understanding on the spatio-conceptual relationship of participants in the event a

verb encodes. In the following discussions on morphosyntactic representations of verbs in the –*an* verb type 1, I will also give an account of the word formation processes.

Now let us proceed to discuss some crucial morphosyntactic expressions which predicts whether or not a verb is classified as ***-an* verb type (1): [Undergoer as Ground in *Placement* (Ⅰ) schema]**. Pickling is an instantiation of the *Placement* (I) schema. Pickling refers to the process in which an actor takes some ferment and mixes it up with raw meat or fish, and then puts the resulting mixture into a bottle and seals it. After several weeks, the meat or the fish gets sour and is edible. The ferment here refers to rice. Since the Figure entity is implied but not explicitly expressed, the Ground entity is then the only object, undergoer, that the language user highlights in the event. In the language, it is the verb *tmami'* used to encode the event in question, which is comprised of a nominal base *mami'* 'rice' and a verbalizer prefix *t-*. This is an instance of the aforementioned nominal-base verb derivative type. The nominal refers to rice, which is an obligatory ingredient for meat pickling. As a result, in some sense, the event encoded by the verb *tmami'* can be paraphrased as:

(6.1) An actor by means of putting rice into a substance like meat have meat affected, so that his goal, meat pickled, can then be achieved.

In (6.1), except for the instrument-like information mentioned, others including the actor, the affected object, and the goal or purpose of the act in question are not specified. Actor and affected object are left expressed as core arguments of a corresponding verb, while the goal/purpose or effect is inferable or pertains to the tacit knowledge in any speech community. The event can also be realized terms of Rappaport Hovav and Levin's (1998) event structure template. (6.2) is an adapted template given in Croft (2012:297 (38)):

172

(6.2) *Kay wiped the polish onto the table*

[[KAY ACT <wipe>] CAUSE [BECOME [POLISH <ON TABLE>]]]

In (6.2), the predicate *wiped* has three arguments, Kay as the actor, the polish as the instrument applied for table cleaning, and the table as the affected object. In addition to the valency, the effect of the act *wiping table with some kind of polish*, i.e., the table is clean, is entailed there. Event described in this example can be paraphrased as *Kay cleaned the table by using the polish on it*. In light of this, the event can be regarded as an instance of the *Placement* schema.

Likewise, for the case of *tmami'*, its template can be written as (6.3):

(6.3) [[Actr. ACT<manner+instrument>] CAUSE [BECOME <instrument> IN (Undr.)]

Information conveyed in brackets are entailed by the semantics of the base, namely, manner refers to an act of putting rice in meats and instrument refers to rice, but the latter is subsumed under the former, and both need not to be specified as arguments in the structure of the verb in question. In contrast, Actor (abbreviated as Actr. in (6.3)) and Undergoer (Undr.) fill two core argument positions with the predicate *tmami'* 'pickle'. In terms of Talmy's framework, (6.3) can be rewritten as:

(6.4) [[Actr. ACT<manner+Figure>] CAUSE [BECOME <Figure> IN (Ground)]

In (6.4), manner refers to the composite of a prefix like *t-* in *tmami'* and Figure conveyed by the nominal base *mami'*. The exact meaning of the prefix in every derived

173

verb with a nominal base is determined by the way the actor applies the Figure instrument to the act in question. Via decomposing events in this way, we can then easily identify how many core argument(s) a verbal predicate has and which concept the core argument, especially for the udergoer, is assigned with. Note that, though either *wiped* in (6.2) or *tmami'* in (6.3) and (6.4) can be regarded as an instance of the *Placement* schema, the two are different in their base: for the former, the base is verbal, while for the latter, its base is nominal, explicitly referring to the type of instrument. In brief, by means of giving an event structure template like (6.4), we realize that Figure is an adjunct participant for events like pickling.

Table 6.1 enumerates some other nominal derived verbs for the *Placement* schema, in which the word formation process and event structure template are given as well:

Table 6.1: Examples of nominal derived verbs for *Placement* schema and their respective event structure template

Derived verb	Word formation process	Event structure template
pqsya' 'to pour water in/on'	*p-*+ *qsya'* 'water'	[[Actr. ACT<pour+water>] CAUSE [BECOME <water> ON (Undr.)]
sqes 'draw a boundary'	*s-*+ *qes* 'boundary'	[[Actr. ACT<draw+boundary>] CAUSE [BECOME <boundary> ON (Undr.)]
t'uraw 'dirty'	*t-*+ *'uraw* 'dirt'	[[Actr. ACT<put+dirt>] CAUSE [BECOME <dirt> ON (Undr.)]

Let us proceed to consider how the various aspects of the event are represented in the morphosyntax of the language, as illustrated in (6.5):

(6.5) *tmami'* 'pickle'
a. nyux=ku   t<m>mami' sa   syam   qa'.
    ASP=1SG.NOM   VZR<m>rice LOC meat   DEM
    'I am pickling the meat.'

b. blaq   t-mmy-an   qu'   syam   qa'.
   good   VZR-rice-an   NOM   meat   DEM
   'The meat pickled well easily.'

b'. *blaq   t-mmy-un   qu'   syam   qa'.
    good   VZR-rice-un   NOM   meat   DEM
    'It is easy to have the meat pickled well.'

c. wal=maku'   t-mmy-an   qu'   syam   qa'   la'.
   ASP=1SG.GEN   VZR-rice-an   NOM   meat   DEM   FP
   'I have pickled the meat.'

c'. t-mmy-un=mu   kira'   qu'   syam   qa'.
    VZR-rice-un=1SG.GEN   later   NOM   meat   DEM
    'I will pickle the meat later.'

d. blaq   s<t>mami'   qu'   mami'   qa'.
   good   s<VZR>rice   NOM   rice   DEM
   'The (type of) rice was a good ingredient for pickling meat.'

e. s<t>mami'=maku'   syam   qu'   mami'   qa'.
   s<VZR>rice=1SG.GEN   meat   NOM   rice   DEM
   'I pickled meat with the (type of) rice.'

f. s<t>mami'=maku'   syam   qu' ciwas;   wah-un=nya'   magal.
   s<VZR>rice=1SG.GEN   meat   NOM PN   come-un=3SG.GEN   m.take
   'I pickled meat for Ciwas; she will come to take it.'

(6.5a) illustrates how the verb *t<m>mami'* 'pickle' is used in an EIC, in which since *syam qa'* 'that meat' is the only undergoer of the verb, it is Loc(2) *sa*-marked. As we have shown, the Loc(2) *sa*-marked NP in an EIC typically gets marked nominative in a syntactically transitive clause. In other words, the concept expressed as a Loc(2) *sa*-marked NP in EIC is assigned nominative case in a transitive clause.

By comparing (6.5b) with (6.5b'), we observe that it is the *-an* voice form, not the
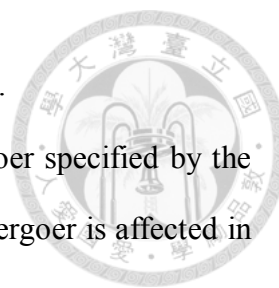
-un form, that is recruited to highlight the undergoer NP *syam* 'meat'.

In (6.5c), the Ground entity *syam qa'* 'the meat' is the undergoer specified by the *-an* form of the verb *tmami'* 'pickle' in a realis event. When the undergoer is affected in an irrealis event, the *-un* voice form must be used, as in (6.5c').

In (6.5d) and (6.5e), exactly as in the fire-extinguishing event and fish-poisoning event, the *s-* form of the verb *tmami'* 'pickle' is used to highlight an instrument-like entity *mami' qa'* 'the (type) of rice'. The Figure entity *mami' qa'* 'the (type) of rice' is highlighted, but not the intrinsic undergoer. In (6.5f), a benefactee participant is highlighted in an event expressed by the *s-* voice form of the verb.

A second illustration of the *Placement* (Ⅰ) schema is the poisoning event. In a typical poisoning event, there are three participants or entities involved: an actor, a kind of poisonous plant, and a target, which is generally a stream or a pond. In terms of Talmy's framework, a stream or pond is conceptualized as the Ground, while the plant as the Figure. In Squliq Atayal, it is the verb *tuba'* 'poison' used to encode the event. The base *tuba'* is precategorial, since it can be freely used in nominal and verbal structures. When used in nominal structures, tuba' refers to a kind of poisonous vine used by the Atayal people to throw into streams or ponds for fishing. Namely, it is restricted to the category of instrument; moreover, according to its spatial arrangement with respect to other participants in a fishing event, it is assigned the concept of Figure. The event can be represented in the following event structure template:

(6.6) [[Actr. ACT<instrument$_{manner}$>] CAUSE [BECOME <instrument> IN Undr.]

In (6.6), items in the brackets are information entailed by the semantics of a base like *tuba'*. Though its ontological category is instrument, manner, i.e., the way about how to

apply the instrument in such an event, is also inferable from the event and therefore can

be regarded as information under the category of instrument.

(6.7) [[Actr. ACT<poisonous vine_{throw}>] CAUSE [BECOME < poisonous vine> IN

Undr.]

In addition to *tuba'*, there are many lexical items whose roots are precategorical and

when used in nominal structures, they refer to an instrument Figure, as shown below.

Table 6.2: Examples of *Placement* (1) schema with precategorical based involved

Precatgorial base	Event structure template
ghap 'to seed; seed'	[[Actr. ACT<seeding>] CAUSE [BECOME <seed> ON Undr.]
kalu' 'to rake; rake'	[[Actr. ACT<raking>] CAUSE [BECOME <rake> ON Undr.]
tamul 'to make wine; yeast'	[[Actr. ACT<yeast adding>] CAUSE [BECOME <yeast> IN Undr.]

Like the case of *tmami'* 'pickle', the nominal base encodes instrument Figure and takes

the role of an adjunct when it appears in a plain clause. The sentences in (6.8) illustrate

the use for *tuba'* 'poison':

(6.8) *tuba'* 'poison'
a. musa'=ku   t<*m*>uba'   squ'   qutux   tubung   qani'.
    ASP=1SG.NOM   <m>poison   LOC   one   pond   this
    'I am going to poison (fish) in this pond.'

b. blaq   tba-n   qulih   qu'   qutux   tubung   qani'.
    good   poison-an   fish   NOM   one   pond   this
    'Fish in this pond was easily poisoned (because there were a lot of fish

there).'

b'. *blaq   tb-on   qulih   qu'   qutux   tubung   qani'.
   good   poison-un   fish   NOM   one   pond   this
   'Fish in this pond was easily poisoned (because there were a lot of fish there).'

c.   wal=mu   tba-n   qu'   qutux   tubung   qani'.
     ASP=1SG.GEN   poison-an   NOM   one   pond   this
     'I poisoned/have poisoned (fish in) this pond.'

c'. tb-on=mu   na'   qu'   qutux   tubung   qani'.
     poison-un=1SG.GEN   still   NOM   one   pond   this
     'I will continue to poison (fish in) this pond.'

d.   blaq   s-tuba'   qulih   llyung   qu'   tuba'   qani'.
     good   s-poison   fish   river   NOM   poisonous.vine   this
     'This poison is a good tool to poison fish in the river.'

e.   wal=mu   s-tuba'   qulih   llyung   qu' tuba'
     ASP=1SG.GEN   s-poison   fish   river   NOM poisonous.vine
     qani'.
     this
     'I poisoned/have poisoned fish in the river with this poison.'

f.   wal=nya'   s-tuba'   qu'   qsuyan=nya'.
     ASP=3SG.GEN   s-poison   NOM   older.sibling=3SG.GEN
     'He poisoned/has poisoned (fish) for his sister.'

In Atayal culture, *tuba'* is a kind of viny plant used exclusive by people undertaking a fish-poisoning event; in (6.8), *tuba'* 'poison with *tuba'*, a viny plant' is a verb derived from a nominal root that refers to a kind of viny plant. This means the Figure (i.e., the viny plant) is left unexpressed structurally, and by contrast, the Ground entity is the only undergoer to be expressed. In (6.8a), the nominal phrase *qutux tubung*

qani' 'this pond', as the Ground, is assigned Loc(2). In (6.8b) and (6.8c), since *qutux tubung qani'* 'this pond' is assigned nominative, the entity it refers to is affected in the poisoning event and so has some cognitive salience relative to other NPs.

In (6.8b'), the *-un* form of *tuba'* 'poison' is prohibited from occurring in the *blaq* construction; instead, as in the case of *tmami'* 'pickle', the *-un* voice form verb is used when the undergoer is projected to become the most salient in an irrealis event, as in (6.8c').

In (6.8d) and (6.8e), the nom-marked NP *tuba' qani'* 'this poisonous vine' is the most salient entity in the poisoning event when it is to be interpreted as the instrument of the poisoning event and thus must occur in the CV *s-* voice form.

Likewise, in (6.8f), the nom-marked benefactee participant *qsuyan=nya'* 'his older sister' is the most salient in the event encoded by the *s-* form of the verb *tuba'* 'position'. Since benefactive NPs play no role in determining the argument structure of any verbs, they are not permitted to occur in an EIC or the *blaq* construction.

Extinguishing is another instantiation of the *Placement* (I) schema. The extinguishing event frame includes a number of attributes called participant roles, including an actor, instrument (water), and undergoer (fire). From the perspective of spatial arrangement of the participants, water is stuff existing in between an actor and fire and sprinkled on the fire. Fire is then realized as a container of water. Event of this sort can be represented as below:

(6.9) [[Actr. ACT<manner$_{instrument}$>] CAUSE [BECOME <instrument> ON Undr.]

Manner here refers to the act of sprinkling water on an object. As a result, water is information entailed by the semantics of the base like *extinguish* and *i'yut* 'extinguish'

179
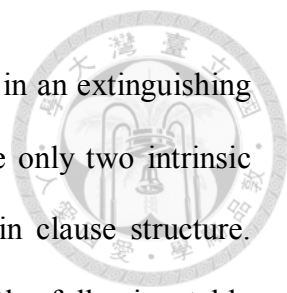
and since it is subcategorized to manner, it is an adjunct participant in an extinguishing event. In other words, an actor and an undergoer (i.e., fire) are the only two intrinsic arguments of verbs like *extinguish* and *i'yut* 'extinguish' in a plain clause structure. Many verbs construct the *Placement* (I) schema in this way, as the following table shows:

Table 6.3: Examples of verbal base derivatives for the *Placement* (1) schema

verbal base derivative	Event structure template
betaq 'to stab'	[[Actr. ACT<go into$_{nail}$>] CAUSE [BECOME <nail> INTO Undr.]
patas 'to tattoo'	[[Actr. ACT<draw$_{patterns}$>] CAUSE [BECOME <patterns> ON Undr.]
tapang 'to mend'	[[Actr. ACT<add$_{a\ piece\ of\ cloth}$>] CAUSE [BECOME <a piece of cloth> ON Undr.]

Sentences in (6.10) illustrate the use for *i'yut* 'extinguish':

(6.10) *i'yut* 'extinguish'

a. musa'=ku   m'i'yut   (na'   qsya')   sa   puniq.
    ASP=1SG.NOM   m.extinguish   (GEN   water)   LOC   fire
    'I'm going to extinguish fire (with water).'

b. blaq   i'yut-an   (na'   qsya')   qu'   puniq   qa'.
    good   extinguish-an (GEN   water)   NOM   fire   DEM
    'The fire was extinguished (with water) easily.'

c. *blaq   i'yut-un   (na'   qsya')   qu'   puniq   qa'.
    good   extinguish-un (GEN   water)   NOM   fire   DEM
    'The fire was extinguished (with water) easily.'

c'. wal=mu   i'yut-an   (na'   qsya')   qu'   puniq   qa'.
ASP=1SG.GEN   extinguish-an   (GEN   water)   NOM   fire   DEM
'I extinguished/have extinguished the fire (with water).'

c''. i'yut-un=mu   kira'(na'   qsya')   qu'   puniq   qa'.
extinguish-un=1SG.GEN later (GEN   water)   NOM   fire   DEM
'I will extinguish the fire (with water) later.'

d. blaq   s-i'yut   sa   puniq   qu'   qsya'   qa'.
good   s-extinguish LOC fire   NOM   water   DEM
'(Using) the (bottle of) water made fire extinguished easily.'

e. wal=nya'   s-i'yut   puniq   qu'   qsya'   qa'.
ASP=1SG.GEN   s-extinguish   fire   NOM   water   DEM
'I have used/used the (bottle of) water to extinguish fire.'

f. wal=mu   s-i'yut   puniq   qu'   ciwas.
ASP=1SG.GEN   s-extinguish   fire   NOM   PN
'I extinguished/have extinguished fire for Ciwas.'

(6.10a) is an extended intransitive clause. In this example, an actor, i.e., *I*, is going to have the fire extinguished. Based on our general knowledge about the relative saliency of the participants in a normal fire-extinguishing event, the nominal *puniq* 'fire' is the only undergoer, and is marked with Loc(2).

Next, a comparison between (6.10b) and (6.10b') reveals that the language user selects the *-an* form of the verb *i'yut* 'extinguish', as in (6.10b), instead of the *-un* form (6.10b'), to express the undergoer *puniq* 'fire' as the more salient participant in a transitive fire-extinguishing realis event. From a cognitive perspective, *puniq* is the Ground, and is the grammatical subject of the sentence in (6.10b); *qsya'* is the Figure, but since it is a component entailed by the semantics of the predicate, its presence is optional in (6.10a) and (6.10b), is marked with the genitive 2 *na'*, implying that it is not
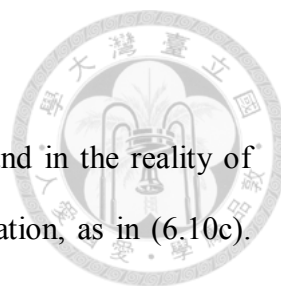
a salient participant.

(6.10c) is similar to (6.10b) in its use of the *-an* voice form and in the reality of event. The *blaq* construction in (6.10b) has a realis event interpretation, as in (6.10c). From a structural perspective, since the undergoer argument is marked by nominative in *-an* construction (e.g., *blaq* construction), a tight relationship between the undergoer and the *-an* form of *i'yut* 'extinguish' is established. In short, by means of (6.10b) and (6.10c), we know that, in a fire-extinguishing event, it is the voice form *-an* that is recruited to make the undergoer nominal 'fire' more salient, the Ground element in the fire-extinguishing event.

In (6.10c'), the voice form *-un* is restricted to occurring in a clause interpreted as an irrealis event; that is, the voice form *-un* is prohibited from participating in the *blaq* construction if it is to describe what may happen to the undergoer in an event, and this is shown by the impossibility of (6.10b').

Thus far, constructions related to the determination of verb type have been identified. The remaining three constructions, i.e., from (6.10d) to (6.10f), are not related to the issue of the determination of verb types. They are there to show that, except for verb-subcategorized undergoer argument(s), usually, the one(s) marked with Loc(2) in an EIC, other arguments, whether they appear in an EIC, such as an instrument nominal marked with Gen(2) *na'*, or not, such as a beneficiary nominal, have no relevance to verb classification in Squliq Atayal. For the verb *i'yut* 'extinguish', its undergoer argument *qsya'* 'water' is the more salient entity in an *s-* clause structure and is realized as an instrumental applicative argument.

Table 6.4 summarizes the preceding results.

Table 6.4: The interaction of concepts, undergoers, case-making, and four construction types for *-an* verb type (1): [Undergoer as Ground in *Placement* (I) schema]

	Concept	EIC construction & case marking		*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Ground** →	Undergoer	*sa* NP	*-un*	*-un* (Irrealis)	---
				-an	*-an* (Realis)	---
Ⅱ	Figure →	Other undergoer participant	*na'* NP	→ *s-* (2) →	---	*s-* (2)
Ⅲ	Figure" = Benefactee	---	---	---	---	→ *s-* (3)

Three points about Table 6.4 are worth stressing. First, the undergoer NP is the Ground in an event denoted by any of the three verbs (e.g., *i'yut* 'extinguish', *tuba'* 'poison' and *tmami'* 'pickle') in an EIC where the undergoer is introduced by *sa*, or a *blaq* construction or a realis plain UV construction, where it is highlighted (i.e., as an argument in nominative case). However, in an irrealis plain UV construction, the undergoer NP must occur in an *-un* form of the verb. This is as (I) in the table shows.

Second, the Figure is not an intrinsic undergoer of the verb and is *na'*-marked in an EIC structure, as in (6.10a), or is lexically expressed by the verb, as in (6.8a). In either the *blaq* construction or an applicative UV construction whether used to describe a realis or an irrealis event, the verb's *s-* form is employed to highlight the Figure entity, termed Figure in Table 6.4. But, as mentioned, the Figure entity is irrelevant to the determination of verb types, since it is inferable from the semantics of the verb.

The last point has to do with the benefactive NP, as expressed in column (Ⅲ) in
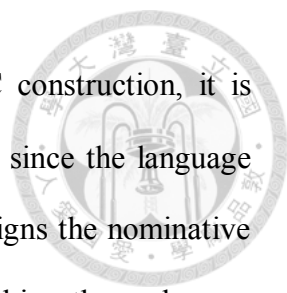
Table 6.4. Since the benefactive NP never participates in an EIC construction, it is irrelevant to the verb classification in the language. Also note that, since the language does not permit two Nom-marked NPs in a single UV clause, it assigns the nominative case to the benefactee argument and leaves the Loc(2) case to marking the undergoer argument in the same clause.

Focusing on the morphosyntactic representation for the undergoers in the *-an* verb type (1), we simplify Table 6.4 and get the following table.

Table 6.5: A syntactico-semantic template for the relationship between verbs in *-an* verb type (1) and their (non-)intrinsic undergoer arguments

Construction type\ Verb form	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un	---	● (Irrealis)	---	---
-an	●	● (Realis)	*sa*	Yes (Ground)
s- (2)	●	---	*na'*	No (Figure)
s- (3)	---	---	---	No (Figure")

(6.11) summarizes the preceding discussions.

> (6.11) **Conceptual representation for verbs in the *-an* verb type (1)**
>
> Some action verbs and nominal-derived verbs convey the image of placing some entity somewhere, with this entity functioning as the undergoer.
>
> The undergoer is *sa*-marked in an EIC and conceptualized as the Ground used to support a Figure, which, because of its inferability from the context (e.g., the rope used in a tying event is a Figure), it is usually left unexpressed structurally, or is introduced by *na'*. When the undergoer is expressed in a dyadic

transitive clause, there is a tight relationship between the undergoer and the -*an* clause. If the undergoer appears in the -*un* voice form of the verb, the clause must be interpreted as expressing an irrealis event.

With regard to the *s-* clause, it has two functions: one is to highlight a Figure entity, while the other, a benefactee participant. The Figure entity is also present in the *blaq* construction but cannot be accounted as the intrinsic undergoer in events. As for the beneficiary argument, its presence is prohibited from an EIC; however, its presence in an *s-* clause is automatically assured.
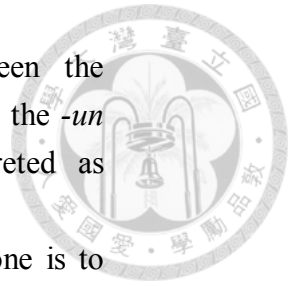
6.3 -*an* verb type (2): [Undergoer as Ground in *Removal* schema]

Events encoded by verbs like *bahuq* 'wash clothes', *salit* 'weed' and *taruq* 'dig (a field with a hoe for planting)' etc. describe a situation where an actor exerts his force on an entity like a piece of clothes, or a field for planting vegetables by removing stuff like dirt, weed, and soil off or from the entity in question. In terms of Talmy's framework, the stuff to be removed is conceptualized as the Figure, and the entity itself the Ground. It is intuitively clear that this kind of removal schema is constructed in the minds of language users as they become native speakers of a language.

Furthermore, in a typical transitive event encoded by a verb, it is the -*an* form that is employed to highlight the Ground as an undergoer. Taking both the spatial arrangement among the entities and the morphosyntactic representation for verbs encoding the events into account, we identify **the -*an* verb type (2): [Undergoer as Ground in *Removal* schema].** The schema is diagramed below:
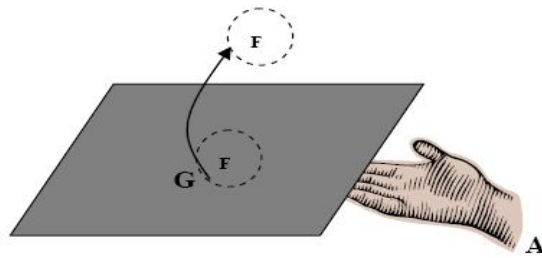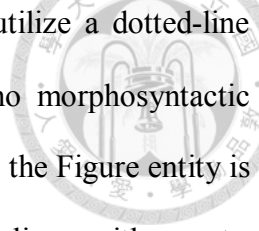
Fig. 6.2: *Removal* schema

In Fig. 6.2, the hand icon stands for the actor, the parallelogram represents the Ground entity, and the round object is the Figure entity. The diagram depicts an activity in which the actor exerts his force on the Ground entity, leading to the removal of the Figure entity from the Ground. In this figure, the hand icon is touching the Ground entity to express the idea that it is the Ground entity the actor directly affects, while shading the entity signifies it is highlighted in a removal event.

How do we construe the Figure entity? It is regarded as an entity in or on the Ground; however, its absence does not bring about any essential change to the Ground entity. For example, removing dirt off the clothes does not mean that the owner will have a piece of worn-out clothes; likewise, removal of weed from a field is for the farmer to have a useful field to farm; similarly, digging holes in a field by removing soil from it would allow the farmer to plant seeds in the holes. In all these activities, the Ground entity is analogous to a container for the Figure, the Figure and the Ground may also be considered to be in a **part-whole relation**, and the Figure may be said to be more of an expectable component than the Ground-- once the Ground entity is assumed to exist, then the Figure entity is automatically implied, at least in the activity where the *Removal* schema instantiates. Since the Figure is more of an expected entity, the language does not usually bother to specify it in an EIC, i.e., the language usually

provides no structural position for it in an EIC. That is why we utilize a dotted-line encircling it to express the idea that the Figure entity assumes no morphosyntactic weight (in an EIC). In spite of its lack of any morphosyntactic status, the Figure entity is conceptually very fundamental to language user in their daily dealings with events. Events of the sort can be formulated as the following template:

(6.12) [[Actr. ACT<manner$_{instrument}$>] CAUSE [BECOME <FIGURE> OFF Undr.]

Components in removal events are as clearly represented in (6.12), including an actor, an undergoer, a removed object and/or an instrument. For the latter two, since they are components subcategorized to the concept of manner, i.e., which are inferable for the semantics of the base or verb, the removed object, and the instrument are usually either unspecified structurally or expressed as adjuncts.

Besides, an idea regarding the differentiation between *Placement* (1) and *Removal* schema is worth pointing out. That is, for the former, its instrument Figure is an object moved away from the actor; in contrast, for the latter, its instrument is held on the hand(s) of the actor and, spatially, it is an object inalienable from the actor; as a result, the instrument cannot be realized as a Figure entity.

Table 6.6 below displays more examples of the *Removal* schema:

Table 6.6: Some examples for verbs constructing the *Removal* schema and their respective event structure template

verbal base derivative	Event structure template
bahuq 'wash clothes'	[[Actr. ACT<brush_{brush}>] CAUSE [BECOME <dirt> OFF Undr.]
gulaq 'peel off'	[[Actr. ACT<peel>] CAUSE [BECOME <skin of fruit> OFF Undr.]
som 'wipe'	[[Actr. ACT<wipe_{wiper}>] CAUSE [BECOME <dirt> OFF Undr.]
salit 'weed'	[[Actr. ACT<weed_{sickle}>] CAUSE [BECOME <weed> ON Undr.]
taruq 'dig a field (with a hoe for planting)'	[[Actr. ACT<dig_{hoe}>] CAUSE [BECOME <soil> OFF Undr.]
wayaw 'select; choose'	[[Actr. ACT<pick>] CAUSE [BECOME <some stuffs> OFF Undr.]

In short, a clothes-washing, a weeding, and a field-digging-for-planting event are instantiations of the removing schema. Let us proceed to how events under investigation are represented morphosyntactically in the language.

Examples in (6.13) illustrate events encoded by the various voice forms of the verb *bahuq* 'wash clothes':

(6.13) *bahuq* 'wash clothes'
a. nyux=ku   mahuq   (na'   grgul)   sa   lukus=su.
     ASP=1SG.NOM   m.wash   (GEN   brush)   LOC clothes=2SG.GEN
     'I am washing your clothes (with a brush).'

b. blaq   bhq-an   qu'   lukus   qani'.
    good   wash-an NOM   clothes   this
    'This piece of clothes was cleaned well easily.'

b'. *blaq   bhq-un   qu'   lukus   qani'.
    good   wash-un NOM   clothes   this
    'This piece of clothes was cleaned well easily.'

c. wal=maku'   bhq-an   qu'   lukus=su   la'.
    ASP=1SG.GEN wash-an   NOM   clothes=2SG.GEN   FP
    'I have washed your clothes.'

c'. bhq-un=mu   kira'   qu'   lukus=su.
    wash-un=1SG.GEN   later   NOM   clothes=2SG.GEN
    'I will wash your clothes later.'

d. blaq   s-bahuq lukus   qu'   grgul   qa'.
    good   s-wash   clothes NOM   brush   DEM
    'The brush is (a) good (tool) for clothes-washing.'

e. wal=mu   s-bahuq lukus   qu'   grgul   qa'.
    ASP=1SG.GEN s-wash   clothes NOM   brush   DEM
    'I have used this brush to wash clothes (before).'

f. wal=mu   s-bahuq lukus   qu'   laqi'   qa'.
    ASP=1SG.GEN s-wash   clothes NOM   child   DEM
    'I have washed clothes for the child (before).'

(6.13a) is an EIC about situation in which the actor, =*ku*, is going to clean someone's clothes. Since the goal of the action encoded by *bahuq* 'wash' is to remove dirt off someone's clothes, the clothes is conceptualized as the Ground; moreover, as shown in (6.13a), the Ground NP, marked by Loc(2), is the only undergoer in the clothes-washing event, since the Figure entity is optional in a sentence like (6.13a).

Comparing (6.13b) with (6.13b'), we observe that the language employs the -*an* form of *bahuq* 'wash (clothes)', instead of its -*un* form, to evaluate the undergoer in a clothes-washing event. Again, there is a tight link between the undergoer and the -*an* voice form.

Likewise, in the clause expressed by the -*an* form of the verb *bahuq* 'wash clothes' (6.13c), *lukus=su* 'your clothes' is the undgergoer in a realis event, and it is marked by

nominative. In (6.13c'), the verb's -*un* form is used to highlight the undergoer in an irrealis event. We conclude that the only undergoer in a (clothes-)washing event is conceptualized as the Ground and highlighting it in a realis event is via the -*an* voice form of the verb *bahuq* 'wash clothes', instead of the -*un* voice form in an irrealis event.

The expressions in (6.13d), (6.13e), and (6.13f) are not related to the specification of the undergoer; rather, they are concerned with peripheral arguments as nom-marked nominals, such as an instrument argument (i.e., *grgul* 'brush' (6.13d) and 6.13e)) or a beneficiary argument (i.e., *laqi' qa'* 'the child' in (6.13f)).

(6.14) illustrates the weeding event in various voice forms of the verb *salit* 'weed':

(6.14) *salit* 'weed'

a. nyux=ku   s<m>alit   squ'   qmayah=mu.
    ASP=1SG.NOM   <m>weed   LOC   field=1SG.GEN
    'I am weeding your field.'

b. blaq   slit-an   qu'   qmayah   qani'.
    good   weed-an   NOM   field   this
    'The field was weeded well easily.'

b'. *blaq   slit-un   qu'   qmayah   qani'.
    good   weed-un   NOM   field   this
    'The field was weeded well easily.'

c. wal=maku'   slit-an   qu'   qmayah=mu   la'.
    ASP=1SG.GEN   weed-an   NOM   field=1SG.GEN   FP
    'I have weeded my field.'

c'. slit-un=mu   kira'   qu'   qmayah=mu.
    weed-un=1SG.GEN   later   NOM   field=1SG.GEN
    'I will weed your field later.'

d. blaq   s-salit   qu'   soki'   qa'.
   good   s-weed   NOM   hatchet DEM
   'The hatchet is (a) good (tool) for weeding.'

e. wal=mu   s-salit   qmayah=mu   qu'   soki'   qa'.
   ASP=1SG.GEN s-weed field=1SG.GEN NOM   hatchet DEM
   'I have ever used this hatchet to weed my field.'

f. wal=mu   s-salit   qmayah=nya' qu'   yutas   qa'.
   ASP=1SG.GEN s-weed field=3SG.GEN NOM   grandfather DEM
   'I have ever weeded my field for the grnadfather.'

In (6.14a), *qmayah* 'field' is introduced into a weeding event by assigning it a Loc(2) case and takes the role of the only undergoer in the event. Notice that, in a weeding event, the goal is to remove weeds from a field; however, as shown in (6.14a), weeds, conceptualized as the Figure, is not lexically specified, but is regarded as being in a part-whole relation with the Ground entity, i.e., *qmayah=mu* 'my field'. Moreover, when talking about a part-whole relationship, the language prefers to highlight the whole entity. This may explain why it is the Ground entity, rather than the Figure entity, that is introduced into the event specified by an EIC in (6.14a).

Furthermore, a comparison between (6.14b) and (6.14b') shows us that the language user selects the *-an* form of the verb *salit* 'weed' to evaluate the undergoer. As in the clothes-washing event, a close link between a verb's *-an* form and the undergoer (Ground) is observed here again. (6.14b') is an unacceptable sentence.

Similar observations apply to (6.14c). In (6.14c), the undergoer *qmayah=mu* 'my field' marked by a nominative case is highlighted in the event encoded by the *-an* form of the verb *salit* 'weed'.

However, the *-un* form of the verb *salit* 'weed', *slit-un*, can be also used to highlight the undergoer in a weeding event, but it is restricted to an irrealis event.

(6.14c') is an illustration.

In (6.14d) and (6.14e), an instrument argument is assigned nominative case and its referent is highlighted in the event encoded by the *s-* form of the verb *salit* 'weed', i.e., *s-salit*. In (6.14f), a beneficiary argument marked by nominative case is highlighted in a *s-* clause.

Thus far, we have demonstrated the morphosyntactic representations for various aspects of the weeding event. As in the case of the clothes-washing event illustrated in (6.14), weeding is another instantiation of the *Removal* schema.

(6.15) below illustrates another instantiation of the *Removal* schema:

(6.15) *taruq* 'dig (a field with a hoe for planting)'
a. musa'=ku   t<m>aruq
    ASP=1SG.NOM   <m>dig(.a.field.with.a.hoe.for.planting)
    sa   pmzy-an=mu   ramat.
    LOC   plant-LOCNMZ=1SG.GEN   vegetable
    'I am going to plow my field for planting vegetables.'

b. blaq   truq-an   qu'
    good   dig(.a.field.with.a.hoe.for.planting)-an   NOM
    pmzy-an=mu   ramat.
    plant-LOCNMZ=1SG.GEN   vegetable
    'My field for planting vegetables was easily plowed.'

b'. *blaq   truq-un   qu'
    good   dig(.a.field.with.a.hoe.for.planting)-un   NOM
    pmzy-an=mu   ramat.
    plant-NMZ=1SG.GEN   vegetable
    'My field for planting vegetables was easily plowed.'

c. wal=maku'   truq-an   qu'
    ASP=1SG.GEN dig(.a.field.with.a.hoe.for.planting)-an   NOM
    pmzy-an=mu   ramat   la'.
    plant-LOCNMZ=1SG.GEN   vegetable   FP

192

'I have plowed my field to plant vegetables.'

c'. truq-un=mu   kira'   qu'
dig(.a.field.with.a.hoe.for.planting)-un=1SG.GEN   later   NOM
pmzy-an=mu   ramat.
plant-NMZ=1SG.GEN   vegetable
'I will plow my field for planting later.'

d. blaq   s-taruq   qu'   karuh   qa'.
good   s-dig(.a.field.with.a.hoe.for.planting)   NOM   hoe   DEM
'The hoe is (a) good (tool) for plowing (holes) for planting.'

e. wal=mu   s-taruq   qu' karuh   qa'.
ASP=1SG.GEN   s-dig(.a.field.with.a.hoe.for.planting)   NOM hoe   DEM
'I have ever used the hoe to plow (the field) for planting.'

f. wal=mu   s-taruq   sa
ASP=1SG.GEN   s-dig(.a.field.with.a.hoe.for.planting)   LOC
pmzy-an=nya'   qu'   ciwas.
plant-LOCNMZ=1SG.GEN   NOM   PN
'I have plowed her field for planting for Ciwas (before).''

(6.15a) is an EIC, in which the actor, *I*, is highlighted, while the undergoer *pmzy-an=mu ramat* 'the field I will/used to plant vegetables' is new information to the hearer. Except for the two entities specified in (6.15a), based on our knowledge of plowing a field in preparation for planting, soil is left unexpressed in (6.15a), but it is better analyzed as another potential undergoer in the event because it is stuff to be removed from the field for the actor to plant vegetables. However, the entity specified by the NP *pmzy-an=mu ramat* 'the field I will use/used to plant vegetables' remains the only undergoer here and the NP is marked by Loc(2).

A comparison between (6.15b) and (6.15b') shows that in the *blaq* construction, the undergoer is highlighted by the use of the *-an* voice form of *taruq* 'dig (the field

with a hoe for planting)', but not by its *-un* voice form.

In (6.15c), the undergoer is involved in a realis event encoded by the *-an* form of the verb and is nominative-marked. Taking (6.15b), (6.15b') and (6.15c) together into account, there is then a tight relation between the *-an* form of the verb *taruq* 'dig (the field with a hoe for planting)' and the undergoer, conceptualized as the Ground.

(6.15c') is an expression for an irrealis transitive plowing event encoded by *truq-un*, i.e., the *-un* form of *taruq* 'dig (the field with a hoe for planting)'; the undergoer is nominative-marked and is highlighted here. In other words, the *-un* form of *taruq* 'dig (the field with a hoe for planting)' is left for an irrealis event.

In (6.15d), (6.15e) and (6.15f), it is the *s-* form of *taruq* 'dig (the field with a hoe for planting)' that is used. (6.15d) and (6.15e) have the same nominative-marked NP referring to an instrument entity. In (6.15f), it is a beneficiary argument that is highlighted and is nominative-marked.

Table 6.7 sums up the preceding discussions:

Table 6.7: The interaction of concepts, undergoers, case-making, and four construction types for *-an* verb type (2): [Undergoer as Ground in *Removal* schema]

	Concept	EIC construction & case makring	*blaq* construction		Plain UV construction (reality status)	Applicative UV construction
I	**Ground** → Undergoer	Undergoer	*sa*↘ NP	*-un* / *-an*	*-un* (Irrealis) / *-an* (Realis)	--- / ---
II	Figure	(Implied from the semantics of verb and also as part of whole)	---	---	---	---
III	(Figure'= Instrument)	(Other undergoer participant 1, but demanded in extra context)	(*na'* NP)	*s-* (2)	---	*s-* (2)
IV	Ground' (= Benefactee)	---	---	---	---	*s-* (3)

In Table 6.7, there are four points that merit our attention. First, as illustrated in (6.13), (6.14) and (6.15), the Ground is the undergoer in the event associated with any of the three verbs (e.g., *bahuq* 'wash clothes', *salit* 'weed' and *taruq* 'dig (the field with a hoe for planting)' in terms of an EIC clause where the undergoer is introduced by the Loc(2) marker, *sa* and, furthermore, in either the *blaq* construction or a realis plain UV construction, it is highlighted (i.e., as an argument in nominative case); however, in an irrealis plain UV construction, the undergoer is specified by the *-un* form of the verb. Argument like this is as (I) means in the table.

Secondly, as displayed in (II), the concept of Figure is not explicitly indicated
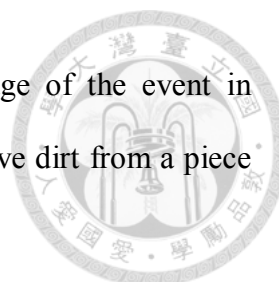
lexically, though its existence is inferable based on our knowledge of the event in question; for example, since the point of washing clothes is to remove dirt from a piece of clothes, it is natural to regard dirt as the Figure.

Third, an instrument entity is not an undergoer in the *Removal* schema, but it is *na'*-marked in an EIC clause. In some sense, it can be conceptualized as another Figure entity. In both a *blaq* construction and an applicative instrument construction whether used to describe a realis or an irrealis event, the *s*- voice form is employed to highlight the entity.

Lastly, since the beneficiary argument cannot be justified based on an EIC of a verb, it cannot be an undergoer of any sort for any events specified by the verb in question. But since it is as a participant that benefits from the event in question, it makes sense to conceptualize it as another Ground entity (marked as Ground'); it is highlighted in a *s*- clause.

Table 6.8: A syntactico-semantic template for the relationship between verbs in *-an* verb type (2) and their (non-)intrinsic undergoer arguments

Construction type\ Verb form	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un	---	• (Irrealis)	---	---
-an	•	• (Realis)	*sa*	Yes (Ground)
s- (2)	•	---	*na'*	No (Figure')
s- (3)	---	---	---	No (Figure")

(6.16) summarizes the preceding discussions

196

(6.16) **Conceptual representation for verbs in the *-an* verb type (2)**

Based on three factors, i.e., the conceptualization of the undergoer, the spatial arrangement of entities in events and morphosyntactic representations for verbs, the *-an* (2) class is distinguished as a separate class.

The undergoer is *sa*-marked in an EIC and conceptualized as the Ground from which an actor removes some stuff (, i.e., the figure). When expressed in dyadic transitive clauses, a tight relationship between the undergoer and the *–an* clause is then established in realis events. The relationship also appears in an irrealis event, where it is specified by the *-un* form of the verb.

With regard to the *s-* clause type, there are two functions: one is used to highlight a Figure entity, while the other, a benefactee participant. The Figure entity as an applicative instrument is also attested in the *blaq* construction. As for the beneficiary argument, its presence is not permitted to occur in an EIC, but its presence in a *s-* clause is automatically insured.

6.4 *-an* verb type (3): [Undergoer as Ground in *Indivisibility* schema]

Events encoded by verbs like *qlu'* 'close', *gyax* 'open' and *behuw* 'lock' are used to illustrate a situation in which an actor exerts his force on a part of an entity, and yet the whole is affected as well, though an action like this does not cause any essential change on the entity. The small part is the Figure, while the larger whole is the Ground. Based on the description, Figure and Ground stand in an indivisible, part-whole relation. Take a typical door-closing event as an example. In this event, when an actor turns the handle on a door, the edge of a door board remains tightly joined to the doorframe which is embedded in a wall. In addition to the actor, there are four participants involved in the event, i.e., a handle, a door board, a doorframe and a wall; a visual representation of these entities is displayed below:
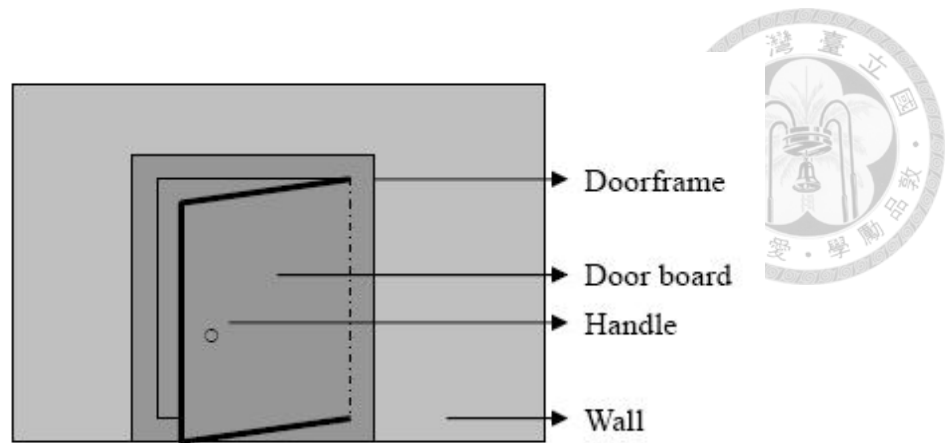
Fig. 6.3a: Visual representation of a door and its assemblies

So, among the four parts, which is the Figure entity and which is the Ground? Wall is ruled out immediately, since the entity is never expressed explicitly, nor necessarily implicitly in a typical door-opening event; instead, it is only left for anchoring the doorframe. All the other three entities, i.e., a handle, a door board, and a doorframe, form an indivisible relationship. The whole is then categorized as the Ground entity. Either the door board, or the handle, or the doorframe takes the role of Figure. But since it is usually a door board, rather than a door handle, that is attached to the doorframe, I choose the door board as the Figure entity. Therefore, in a door-closing event, there is an indivisible relationship between Figure and Ground, as schematized below:
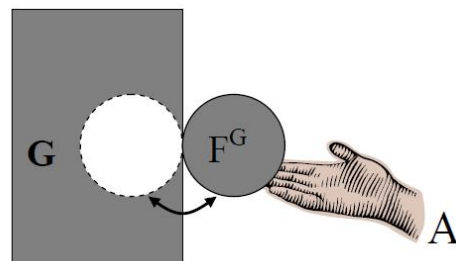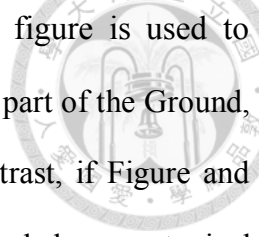

Fig. 6.3b: *Indivisibility* schema

In Fig. 3b, the rectangle stands for the Ground entity, and the circle, the Figure

198

entity. Since Figure is part of Ground, we label it as F^G. The figure is used to illustrate the scene where an actor (A) exerts his/her force on some part of the Ground, such as the door board, which is conceptualized as Figure; in contrast, if Figure and Ground are apart from each other, the action cannot be regarded as a typical door-closing event. All in all, Ground keeps its anchoring function as to Figure. Moreover, morphosyntactically, it is usually the whole door instead of its part like a door board or a handle that is specified as an undergoer in a typical door-closing event, and it is the *-an* form of a corresponding verb to encode the undergoer as a clausal subject; that is, verbs used to encode the spatial, conceptual and the morphosyntactic relationship are grouped into ***-an* (3) verb type: [Undergoer as Ground in *Indivisibility* schema].**

The event structure template for verbs under this type can be represented as:

(6.17) [[Actr. ACT<manner>] CAUSE [BECOME <FIGURE> WITH Undr.]

(6.17) means that *An actor acts upon the Figure, which is part of the Ground*, which is inferable from the semantics of the base or from the discourse context.

Now let us proceed to consider how the various aspects of a door-closing event are represented in the morphosyntax of the language, as illustrated in (6.18):

(6.18) *qlu'* 'close (a door or a window)'
a.   musa'=ku   q<m>lu'   sa   blihung.
      ASP=1SG.NOM   <m>close   LOC   door
   'I am going to close (a) door.'

199

b. blaq ql'-an qu' blihung qa'.
   good close-an NOM door DEM
   'It is easy to close the door (tight).'

b'. *blaq ql'-un qu' blihung qa'.
    good close-un NOM door DEM
    'It is easy to close the door (tight).'

c. wal=mu ql'-an qu' blihung qa' la'.
   ASP=1SG.GEN close-an NOM door DEM FP
   'I have closed the door (before).'

c'. ql'-un=mu qu' blihung qa' kira'.
    close-un=1SG.GEN NOM door DEM later
    'I will close the door (later).'

d. s-qlu'=mu blihung qu' laqi' qa'.
   s-close=1SG.GEN door NOM child DEM
   'I closed (the) door for the child.'

(6.18a) is an EIC about a situation in which the actor, =ku, is going to close a door. Since the door is the undergoer of the action, it is Loc(2)-marked. Comparing (6.18b) with (6.18b'), we observe that the language employs the -*an* form of the verb *qlu'* 'close', instead of its -*un* form, to evaluate the undergoer in a door-closing event. That shows a tight link between the undergoer and the -*an* voice form. In (6.18c), it can be observe that in the clause expressed by the -*an* form of the verb *qlu'* 'close' is the undergoer in a realis event, and it is marked by nominative. In (6.18c'), the verb's -*un* form is used to highlight the undergoer in an irrealis event. We conclude that the only undergoer in a door-closing event is conceptualized as the Ground and it is highlighted in a realis event via the -*an* form of the verb *qlu'* 'close'.

In (6.18d), the sentence is concerned with the situation in which a beneficiary
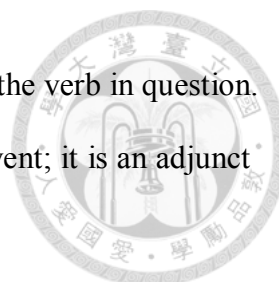
participant is highlighted and highlighting is done via the *s-* form of the verb in question. Participant like this is not an intrinsic undergoer in a door-closing event; it is an adjunct participant and has no relation to the determination of verb type.

In (6.18), none of the subjects of the sentences involve the concept of instrument, since in most cases, hand is the default instrument used by an actor to perform his action; however, it is the *s-* form of the verb in this type to encode an instrument NP as the subject in a clause, as illustrated in (6.19):

(6.19) *gyax* 'open'
a. Q: nu'-un=su   qu'   sosu'   qani'?
        what-un=2SG.GEN   NOM   key   DEM
        'What will you do with the key?'
    A: s-gyax=mu   blihun.
        s-open=1SG.GEN   door
        'I will open (a) door (with it).'

b. blaq   *s*-gyax   blihun   qu'   sosu'   qa'.
    good   s-open   door   NOM   key   DEM
    'The key is a good instrument to open (a) door.'

In (6.19a), the speaker uses an *-un* clause structure to pose his question about the key; in the answer to the question, the speaker resorts to using a *s-* clause structure to express the instrument function of the key in question, where an omitted NP referring to the key is the subject. In (6.19b), the entity specified by the NP *sosu' qa'* 'the key' is taken as a good tool in a dooropening event; the entity is the subject in the *blaq s-* construction there. Table 6.9 sums up the preceding discussions:

Table 6.9: The interaction of concepts, undergoers, case-making, and four construction types for *-an* verb type (3): [Undergoer as Ground in *Indivisibility* schema]

	Concept	EIC construction & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Ground** ⟶ Undergoer	Undergoer	*sa* NP	*-un* / *-an*	*-un* (Irrealis) / *-an* (Realis)	--- / ---
II	Figure	(Implied from the semantics of verb and also as part of whole)	---	---	---	---
III	(Figure'= Instrument)	(Other undergoer participant 1, but demanded in extra context)	(*na'* NP)	*s-* (2)	---	*s-* (2)
IV	Figure" (= Benefactee)	---	---	---	---	*s-* (3)

In Table 6.9, the first column (Ⅰ) is concerned with the intrinsic undergoer. It is conceptualized as Ground and in an EIC clause, the undergoer NP is introduced by *sa* (Loc2) and, in either a *blaq* construction or a realis plain UV construction, it is the highlighted entity (i.e., as an argument in nominative case); however, in an irrealis plain UV construction, the undergoer NP is specified in the *-un* form of the verb in question.

Second column (Ⅱ) is associated with the concept of Figure, which is not specified in the syntax of the language. Instead, as stated, its existence is inferable from
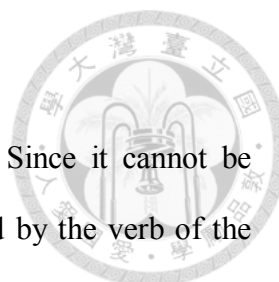
discourse context.

The third column is concerned with a beneficiary argument. Since it cannot be justified as undegoer in an EIC, it cannot be an undergoer specified by the verb of the type in question. But since it is as a participant that triggers the happening of an event and can be realized as force, it makes sense to conceptualize it another Figure entity (marked as Figure''), and it is highlighted in a *s-* clause.

Table 6.10 is a simplified version of Table 6.9:

Table 6.10: A syntactico-semantic template for the relationship between verbs in *-an* verb type (3) and their (non-)intrinsic undergoer arguments

Non-actor clause type	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un *-an*	● (Irrealis) ● ● (Realis)		*sa*	Yes (Ground)
s- (2)	●————————●		*(na')*	(No (Figure'))
s- (3)	--- ---		---	(No (Figure''))

Table 6.10 shows a direct link between the Ground undergoer and the *-an* form of the verb in the *-an* type (3): [Undergoer as Ground in *Indivisibility* schema].

(6.20) summarizes the preceding discussions:

(6.20) Conceptual representation for verbs in the *-an* (3) class
    Based on three factors, i.e., the conceptualization of the undergoer, intrinsic the spatial arrangement of and the relationship between entities in events and the morphosyntactic representation for the clauses sanctioned by the verbs, there is the

-an (3) class identified. Participants there together construct an *Indivisibility* schema.

The undergoer is *sa*-marked in an EIC and conceptualized as Ground in such an event where an actor exerts his/her force on one point on Ground in order to make Ground move; the point is realized as Figure. Ground and Figure are in an indivisible relation.

When expressed in dyadic transitive clauses, a tight relationship between the intrinsic undergoer and the *-an* clause is established, The undergoer also appears in a non-neutral context, i.e., in an irrealis event, where it is specified by the *-un* form of related verbs.

With regard to the *s*- clause type, there are two functions: one is used to highlight an instrument entity, while the other, a benefactee participant. The instrument entity is attested in a *blaq* construction but is not an intrinsic undergoer of any verbs in this type. As for the beneficiary argument, its presence is prohibited from an EIC and its presence in a *s*- clause is automatically insured.

6.5 *-an* verb type (4): [Undergoer as Ground^{Figure} in *Possession* schema]

Events encoded by *ksyuw* 'borrow' and *psyuw* 'return' are to illustrate a situation in which an actor transfer some entity that belongs to someone. From the perspective of valency, constructions used to encode events of this sort are three-participant constructions, including an actor, a transferred theme, and a possessor. However, the language takes the last two entities and turns them into incorporated into a single syntactic unit, a possessive phrase in which the possessee is the head, and the possessor, the modifier. The possessive phrase then becomes the only intrinsic undergor argument of the verbs in question, and is the subject of the *-an* form of the verbs encoding a realis event. That is, the clauses thus formed are realized as bivalent constructions.

It can also be easily observed that the transferred theme and the possessor are in a

possessive relation or a part-whole relation. However, unlike *biq* 'give', which uses the *s-* form to highlight a transferred theme and an *-an* form used to encode a goal participant, for verbs like *ksyuw* 'borrow' and *psyuw* 'return', their *-an* form simultaneously conveys two distinct concepts, possessor and possessee, standing in a possessive relationship, although the head of the subject NP refers to the possessee. There is then an asymmetrical relation between conceptualization and syntax. In terms of Talmy's framework, the possessor is analogous to the Ground entity, while the possessee the Figure entity. Taking both the spatial relationship among the entities and the morphosyntactic representation for verbs encoding the events into account, we identify as a separate type the *-an* verb type (4): **[Undergoer as Ground$^{\text{Figure}}$ in Possession schema]**. The schema is diagramed below:
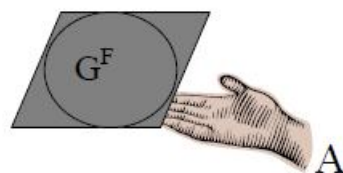
Fig. 6.4: *Possession* schema

In previous discussions, we use a circle to signify a Figure entity and a quadrangle to stand for a Ground entity. The two are two separate objects in space. In the present case, because of their inherent possessive relation, the two icons merge into one, i.e., a circle embedded inside a quadrangle. G^F stands for the intrinsic undergoer entity. Using the name G^F, instead of F^G, is to lay special emphasis on Ground, since the realization of the subject undergoer is via the *-an* form of a verb in a neutral context. However, since Figure appears as the head in a possessive phrase subject constituent, there is a
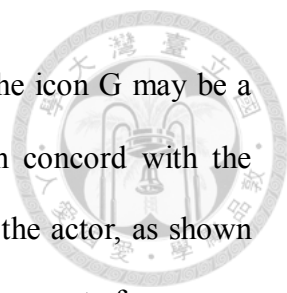
need to encode the Figure entity; taking Figure as a superscript to the icon G may be a better solution to manifest the relationship that the head is not in concord with the argument marking. Last but not the least, the fact that the image of the actor, as shown by the hand icon in Fig. 6.4, touches the undergoer, means the former exerts force upon the latter. Henceforth, we categorized *ksyuw* 'borrow' and *psyuw* 'return' into the ***-an* (4) verb class: [Undergoer as Ground^{Figure} in *Possession* schema]**.

Note that, thus far, we have only found borrowing event and returning event as two instances of the schema. Maybe there are other verbs yet to be discovered in the language. Now let us proceed to show how events under investigation are represented morphosyntactically. Consider (6.21):

(6.21) *ksyuw* 'to borrow'

a.   musa'=ku   ksyuw   sa   pila'   na'   ciwas.
     ASP=1SG.NOM   borrow   LOC money   GEN   PN
     'I am going to borrow money from Ciwas.'

a'. *musa'=ku   ksyuw   sa   pila'   sa   ciwas.
     ASP=1SG.NOM   borrow   LOC money   LOC   PN
     '??? I am going to borrow money from Ciwas.'

a". *musa'=ku   ksyuw   sa   pila'.
     ASP=1SG.NOM   borrow   LOC money
     '??? I am going to borrow money.'

b.   blaq   ksyug-an   qu'   pila'   na' ciwas   qa'.
     good   borrow-an   NOM   money   GEN PN   DEM
     'It is easy to borrow money from Ciwas.'

b'. *blaq   ksyug-un   qu'   pila'   na' ciwas   qa'.
     good   borrow-un   NOM   money   GEN PN   DEM
     'It is easy to borrow money from Ciwas.'

c. wal=mu   ksyug-an   qu'   pila'   na' ciwas.
    ASP=1SG.GEN borrow-an   NOM   money   GEN PN
    'I have borrowed money from Ciwas (before).'

c'. ksyug-un=maku'   qu'   pila'   na' ciwas
    borrow-un=1SG.GEN   NOM   money   GEN PN
    'I will borrow money from Ciwas.'

d. s-ksyuw=maku'   pila'   qu'   ciwas.
    s-borrow=1SG.GEN   money   NOM   PN
    'I borrowed money (from other) for Ciwas.'

(6.21a) is an EIC, in which the actor, =*ku*, is nominative-marked, and the possessive phrase *pila' na' ciwas* 'Ciwas's money; money owned by Ciwas', since as the intrinsic undegoer of the lexical verb *ksyuw* 'borrow', is Loc(2)-marked. (6.21a') is designed to show that a trivalent construction for the verb *ksyuw* 'borrow' is not available in the language. (6.21a'') shows that leaving the possessor unspecified in an EIC clause is ungrammatical. This implies the possessor role has some kind of conceptual weight on the linguistic realization of the borrowing event. In (6.21b), the entity specified by such a possessive phrase is the target to be evaluated in a *blaq* construction, in which the -*an* form of the verb *ksyuw* 'borrow' is employed. Furthermore, as illustrated in (6.21c), the -*an* form is used to encode the intrinsic undergoer as the subject in a realis transitive clause. As for the verb's -*un* form, it is not available in a *blaq* construction, as illustrated in (6.21b'); instead, the -*un* form is used in an irrealis transitive event, as in (6.21c'). (6.21d) shows that the verb's *s-* form is used to encode the subject role of a beneficiary argument. Since the beneficiary argument cannot be justified in an EIC clause structure, it cannot be an undergoer responsible for determining the type of the verb in question.

Table 6.11 sums up the preceding discussion:

Table 6.11: The interaction of concepts, undergoers, case-making, and four construction types for -*an* verb type (4): [Undergoer as Ground^{Figure} in *Possession* schema]

	Concept	EIC construction & case marking		*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Ground^{Figure}**	Under-goer	*sa* NP	*-un* *-an*	*-un* (Irrealis) *-an* (Realis)	--- ---
II	Figure" (= Benefactee)	---	---	---	---	*s-* (3)

In Table 6.9, the first column (I) is concerned with the intrinsic undergoer. It is conceptualized as Ground^{Figure} and in an EIC clause, a respective NP is introduced by *sa* (Loc 2), and furthermore, in either a *blaq* construction or a realis plain UV construction, it is the highlighted entity (i.e., as an argument in nominative case); however, in an irrealis plain UV construction, the undergoer is specified by the *-un* form of the verb.

Second column (II) is associated with a beneficiary argument. Since it cannot be justified as undegoer in an EIC, it cannot be an undergoer in any sort of events specified by the verb in the type. But since it is a participant that triggers the happening of an event and can be realized as force, it makes sense to conceptualize it another Figure entity (marked as Figure'), and is specified as the subject in a *s-* clause.

Table 6.12 is a simplified version of Table 6.11:

Table 6.12: A syntactico-semantic template for the relationship between verbs in *-an* verb type (4) and their (non-)intrinsic undergoer arguments

Non-actor clause type	*blaq* construction	Plain UV Construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un		● (Irrealis)		Yes
-an	● —————— ● (Realis)		*sa*	(Ground)
s- (3)	---	---	---	(No (Figure"))

Table 6.12 shows a direct link between the Ground undergoer and the *-un* form of the verb in the *-an* verb type (4): [Undergoer as Ground[Figure] in *Possession* schema]

(6.22) summarizes the preceding discussions:

(6.22) **Conceptual representation for verbs in the *–an* (4) type**

Based on three factors, i.e., the conceptualization of their intrinsic undergoer, the spatial relationship between participants or entities in events and the morphosyntactic representation for verbs encoded by their respective events, the *-an* verb type (4): [Undergoer as Ground[Figure] in *Possession* schema] is identified.

The undergoer is realized as a possessive NP and is *sa*-marked in an EIC and conceptualized as Ground. When expressed in dyadic transitive clauses, a tight relationship between the undergoer and the *-an* clause is established. When the undergoer is the most prominent in an irrealis event, the language employs the *-un* form of a verb in the type.

With regard to the *s-* clause type, it is used to encode a beneficiary argument; its presence in a *s-* clause structure is automatically assured.

Lastly, a remarkable feature of the schemas is that in the Possession schema its intrinsic undergoer is a possessive phrase consisting of a possessed nominal head and a possessor pronoun or nominal modifier, with the former conceptualized as Figure and the

latter, Ground; an asymmetry yields between conceptualization and morphosyntax. Asymmetry of this sort is found in a neutral transitive clause, in which the semantic role of the Nom argument seems to be biased toward the Figure, but the voice-marking is biased toward the Ground.

6.6 -*an* verb type (5): [Undergoer as Ground in *Mediation* schema]

Verbs like *gluw* 'take (a vehicle)'[30], *palah* 'warm oneself over the fire', *skluw* 'draw (a rope) for moving' and so on are grouped into a distinct verb type. Three major properties for these verbs are presented below:

(6.23) a. verbs under investigation have their intrinsic undegoer argument encoded as the subject via their -*an* form;

b. their undegoer argument is conceptualized as Ground where the actor move with or makes use of in order to achieve an intended goal; in some sense, the undegoer entity can be construed as an instrument;

c. the actor and the Figure entity have the same referent and the two stand in a reflexive relation.

Based on the above three properties, events of this sort can be paraphrased as:

(6.24) The actor through the Ground entity achieves his or her intended goal.

As a result, verbs under investigation are classified as the -*an* verb type (5): [Undergoer as Ground in *Mediation* schema].

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[30] *Gluw* is often glossed as 'follow', which is used in the situation that the one to be followed by another can be interpreted as a guide for the follower moving forward and finally reaching his or her destination. Relatively speaking, when glossed as 'take (a vehicle), the verb is used as an idiomatic expression. Either the one to be followed or a vehicle for people to take is assigned as the undergoer in events encoded by the verb *gluw*. Since undergoer of the sort is always on the sight of the follower, in some sense, it is in static and is conceptualized as Ground.

Take a car-taking event as an example. In this event, an actor moves toward the car and then gets on it; after that, the car starts to move. The event can be seen as composed of two subevents: in the first subevent, a man (i.e., a physical entity acting as both Actor and Figure) is approaching the target; in the second subevent the target brings about the effect expected by the man, namely, taking the man to an intended destination. The relationship between participants in event of this sort can be schematized as below:

Fig. 6.5: *Mediation* schema

In Fig. 6.5, G stands for the Ground entity, e.g., a vehicle, while F^A, a composite of Actor and Figure, e.g., a passenger. (i) and (ii) respectively refer to the two subevents. Verbs of this type have their G entity bearing a dual role: it takes the role of location for F^A undergoing a change of movement, and it is also an instrument for F^A undergoing some change of location. There is then a conceptual interpenetration between location and instrument. This means that, for the verbs under investigation here, there is no need to specify an instrument argument in terms of the *s-* clause structure. This point will be verified in later examples (i.e., (6.25) and (6.26)).

Let us proceed to look at how events are realized structurally. Consider (6.25):

211

(6.25) *gluw* 'follow; take (a vehicle)"

a.   Q : h<m>swa'=su   m-wah   sqani'?
        <m>how=2SG.NOM m-come   LOC:here
        'How did you get here?'
     A : mluw=saku'   sa   turuy=nya'.
        m.follow=1SG.NOM   LOC   car=3SG.GEN
        'I got a ride in his car.'

b.   blaq   glg-an   qu'   turuy=nya'.
     good   follow-an   NOM   car=3SG.GEN
     'It is easy to get a ride in his car. (i.e., He is willing to give people a ride in his
     car).'

b'. blaq   *glg-un   qu'   turuy=nya'.
     good   follow-un   nom   car=3SG.GEN
     'It is easy to get a ride in his car.'

c.   wal=mu   glg-an   qu'   turuy=nya'   la'.
     ASP=1SG.GEN follow-an   NOM   car=3SG.GEN   FP
     'I have got a ride in his car (before)'

c'. glg-on=maku'   qu'   turuy=nya'   kira'.
     follow-un=1SG.GEN   NOM   car=3SG.GEN   later
     'I will get a ride in his car later.'

d.   s-gluw=maku'   ciwas   qu'   laqi'   qa'.
     s-follow=1SG.GEN   PN   NOM   child   DEM
     'I will let the child follow/ride with Ciwas.'

(6.25a) and (6.25b) constitute a question-answer pair. In (6.25a), the speaker asks the

hearer the way to come here. In (6.25b), the hearer answers in terms of an EIC clause, in

which the NP *turuy=nya'* 'his car' is the only undergoer of the verb *mluw* 'follow; ride'

and is Loc2 *sa*-marked. Comparing (6.25b) with (6.25b'), it can be observed that it is

the *-an* form of *gluw* 'follow' that is attested in a *blaq* construction, instead of its *-un*

form. This means the salience of the verb's intrinsic undergoer is activated in an event

encoded by its -*an* form, rather than its -*un* form. Likewise, (6.25c) expresses the same

idea, namely, there is a tight link between the verb's intrinsic undergoer and its -*an* form,

which is established in a realis event. As for the verb's -*un* form, it is restricted to an

irrealis event as illustrated in (6.25c'). In (6.25d), the *s-* form of the verb is used to

express a causatives or a benefactive reading, in which the nominative NP has a dual

role: *laqi'qa'* 'the child' is both a causee and a benefactee.

(6.26) illustrates another instantiation of the *Mediation* schema.

(6.26) *palah* 'warm oneself over the fire'

a. nyux=saku'   malah   sa   puniq   qa'.
    ASP=1SG.NOM   m.warm.oneself.over.the.fire LOC   fire   DEM
    'I am warming myself (over the fire).'

b. blaq   plah-an   qu'   puniq   qa'.
    good   warm.oneself.on.the.fire-an   NOM   fire   DEM
    'The fire is a good tool to warm (myself).'

b'. *blaq   plah-un   qu'   puniq   qa'.
     good   warm.oneself.on.the.fire-un   NOM   fire   DEM
     'The fire is a good tool to warm (myself).'

c. wal=mu   plah-an   qu'   puniq   qa'.
    ASP=1SG.GEN   warm.oneself.on.the.fire-an   NOM   fire   DEM
    'I have warmed myself over the fire (before).'

c'. plah-un=mu   kira'   qu'   puniq   qa'.
     warm.oneself.on.the.fire-un=1SG.GEN   later   nOM   fire   DEM
     'I will warm myself on the fire later.'

d. s-palah=mu   puniq   qu'   laqi'   qa'.
    s-warm.onself.on.the.fire=1SG.GEN   fire   NOM   child   DEM
    'I let the child warm his body on the fire.'

(6.26a) is an EIC clause, in which the nominative-marked pronoun =*saku'* is the subject, while the NP *puniq qa'* 'the fire' is the only intrinsic undergoer and then is Loc(2) *sa*-marked. (6.26b) and (6.26b') make a comparsion of the application of their respective UV voice form to the *blaq* construction. The results are identical to the case of *gluw* 'follow: it is the *-an* form of the verb that is attested, as in (6.26b), and its *-un* form is not. (6.26c) illustrates a realis event, in which the only undergoer of the verb is activated as the most salient in the event specified by the verb's *-an* form; by contrast, the verb's *-un* form is restricted to an irrealis event, in which the intrinsic undergoer remains the subject. Taking (6.26b), (6.26b'), (6.26c) and (6.26c') into account, there is then a tight link between the *-an* form of the verb *palah* 'warm oneself over the fire' and its intrinsic undergoer.

(6.26d) also illustrates that the subject argument in an s- clause has a dual role, i.e., as a causee and a benefactee.

Table 6.13 below summarizes the morphosyntactic representations discussed in (6.25) and (6.26):

Table 6.13: The *-an* verb type (5): [Undergoer as Ground in *Mediation* schema]

	Concept	EIC construction	*blaq* construction	Plain UV construction (reality status)
(I)	**Ground** →	Undergoer →	*sa* NP →	*-un* / *-an* → *-un* (Irrealis) / *-an* (Realis)
(II)	Figure" (= Causee/ Benefactee)	---	---	--- → *s-* (3)

In Table 6.13, the Ground concept refers to the undergoer in an event with its participants constructing a *Mediation* schema. The undergoer is Loc2 *sa*-marked in an EIC and is the subject in a *blaq* construction with the *-an* of verbs in the verb type (5); The *-an* form is also employed to encode a realis event. Their *-un* form is not available in a *blaq* construction, but is used to encode an irrealis event. The subject of an *s-* form has a dual-role as both a cause and a beneficiary argument.

Table 6.14 is a simplified version of Table 6.13:

Table 6.14: A syntactico-semantic template for the relationship between verbs in *-an* verb type (5) and their (non-)intrinsic undergoer arguments

Non-actor clause type	*blaq* construction	Plain UV construction (Reality status)	Case marking in	As intrinsic undergoer
			EIC	(Concept)
-un		(Irrealis)		
-an		(Realis)	*sa*	Yes (Ground)
s-			---	(No (Figure"))

215

(6.27) summarizes the preceding discussions:

(6.27) Conceptual representation for verbs in the *-an* verb type (5)

Based on three factors, i.e., the conceptualization of their undergoers, the spatial arrangement of entities in events and the morphosyntactic representations, the *-an* verb type (5): [Undergoer as Ground in *Mediation* schema] is distinguished. Verbs include *gluw* 'follow; take a vehicle', *palah* 'warm oneself on the fire', *skluw* 'draw (a rope) for moving' and son on.

The undergoer is Loc(2) *sa*-marked in an EIC clause and conceptualized as Ground for the actor to move along with and achieve an intended goal by. When expressed in dyadic transitive clauses, a tight relationship between the undergoer and the *-an* clause is then established in realis events. This relationship is also observed in a blaq construction test. Again, this shows an inherent relationship between the Ground undergoer and the verbs' *-an* form. The Ground undergoer also also appears as the subject in an irrealis *-un* clause.

With regard to the *s-* clause type, it is used to encode a causee or a beneficiary argument; however, like most nominative-marked arguments in an *s-* clause structure, the argument in the same semantic category is not justified in an EIC clause and its presence in a *s-* clause structure is automatically insured.

Finally, it is worth noting that the other core participant in the event symbolized as F^A is a composite of actor and Figure, and that there is also a conceptual interpenetration, or a reflexive relation between location and instrument that the Actor participant and the Figure entity are in.

6.7 *-an* verb type (6): [Undergoer as Ground in *Fixedness* schema]

Verbs like *maki'* 'exist', *klkax* 'kick', *'luy* 'discover; find out', etc. are used to express a situation in which an actor acts upon an object which is located somewhere. Take *'luy* 'find out' as an example. In a finding-out event, an entity (e.g., a wallet) is the target an actor is to find out; the target is located somewhere, which is in contrast to the

actor, who is construed as a dynamic object in the act of finding out something. In other words, in a finding-out event, a target object and an actor are in the relation that the former is used to anchor the latter. In terms of Talmy's framework, the target is conceptualized as Ground, while the actor, Figure. Likewise, in an existing event, there is a location that anchors the existence of an object. In short, for the events like an existing, a kicking, a finding-out event and so on, there is a static object which is used for anchoring another object's existence or movement (e.g., kicking or moving to get the object). In a transitive event, it is the static object that takes the role of undergoer, whose salience is activated by the *-an* form of the verbs in question. Verbs like *maki'* 'exist', *klkax* 'kick', *'luy* 'find out', etc. are thus classified as the *-an* verb type (6): [Undergoer as Ground in *Fixedness* schema]. The schema can be diagramed as:
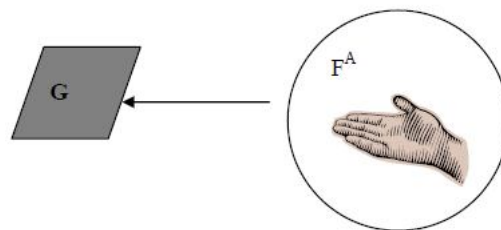

Fig. 6.6: *Fixedness* schema

In Fig. 6.6, G stands for the Ground entity, F^A represents a composite of Actor and Figure, and the leftward arrow represents the direction that the F^A moves in.

Additionally, from the viewpoint of verb semantics, verbs of this type pertain to either the existence/location type or the motion or action verb type. For the first two types, their undergoer is an obligatory argument of the verbs, but not an adjunct.

Second, since the undergoer in events under investigation is static, in contrast to the undergoer in self-moving events which is self-movable, the *Fixedness* schema is the
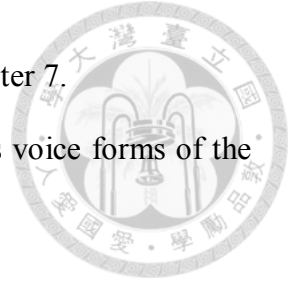
opposite of the *Self-moving* schema, which will be discussed in Chapter 7.

Examples in (6.28) illustrate the events encoded by the various voice forms of the verb *uluw* 'find; find out; discover':

(6.28) *uluw* 'find; find out; discover'

a. m-'uluw   sa   lom   qasa'   qu'   hya'.
    m-find.out   LOC needle that   NOM   3SG.NEU
    'He found that needle.'

b. zihung   'lw-an   qu'   lom.
    difficult find.out-an NOM   needle
    'It is difficult to find (a/any) needle.'

b'. zihung   'lu-n   qu'   lom.
    difficult find.out-un NOM   needle
    'It is difficult to find (a/any) needle.'

c. wal=nya'   'lw-an   qu'   lom   qasa'   la'.
    ASP=1SG.GEN   find.out-an   NOM   needle   that   FP
    'He found that needle.'

c'. 'lu-n=nya'   kira'   qu'   lom   qasa'.
    find.out-un=3SG.GEN   later   NOM   needle   that
    'He will find that needle.'

d. wal=nya'   s-uluw   lom   qu'   yaya'=nya'.
    ASP=3SG.GEN   s-find.out   needle   NOM   mother=3SG.GEN
    'He found (the) needle for his mother.'

In (6.28a), *lom qasa'* 'that needle' is the undergoer argument of the verb *muluw* 'find out' and is Loc(2) *sa*-marked. A comparison between (6.28b) and (6.28b') shows that the *-an* form of *uluw* 'find out' is applied to the evaluation of whether a needle is easily found out or not, as in (6.28b), while, as seen in (6.28b'), the verb's *-un* form is
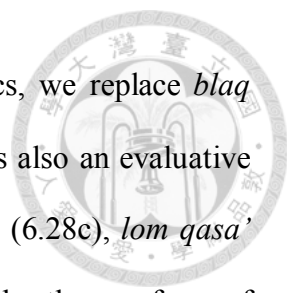
inapplicable. Note that, to meet the requirement of event semantics, we replace *blaq* 'good' with *zihung* 'difficult' in these sentences. *Zihung* 'difficult' is also an evaluative verb for the speaker to make an evaluation of the O participant. In (6.28c), *lom qasa'* 'that needle' is specified as the most salient in the event specified by the *-an* form of *uluw* 'find out'; since it is a realis event, there is a factual basis for the inherent relationship between the undergoer and the voice form. By contrast, in (6.28c'), the *-un* form of *uluw* 'find out' is used in an irrealis event. Finally, in (6.28d), the undergoer argument refers to a benefactee participant, *yaya'=nya'* 'his mother', but it is not an undergoer argument subcategorized for by the verb in question.

Table 6.15 summarizes the discussions on (6.28):

Table 6.15: The interaction of concepts, undergoers, case-making, and four construction types for *-an* verb type (6): [Undergoer as Ground in *Fixedness* schema]

	Concept	EIC construction		*blaq* construction	Plain UV construction (reality status)
I	**Ground** ➡	Undergoer	➡ *sa* NP	*-un* / *-an*	*-un* (Irrealis) / *-an* (Realis)
II	Figure" (=Benefactee)	---	---	---	*s-*

In Table 6.15, (I) illustrates that the participant or entity conceptualized as the Ground is the intrinsic undergoer of verbs in the *-an* verb type (5), and is Loc(2) *sa*-marked in an EIC clause structure; it is the *-an* form attested in the *blaq* construction, identical to the voice form used to encode a realis transitive event. Verbs of this type take their *-un* form used in a irrealis transitive event. (II) is associated with another Figure" participant in
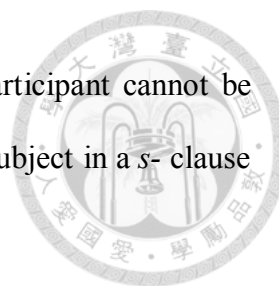
the event; it refers to a beneficiary participant. The beneficiary participant cannot be coded as an argument in an EIC clause structure, but occurs as the subject in a *s-* clause structure.

Table 6.16 is a simplified version of Table 6.15:

Table 6.16: A syntactico-semantic template for the relationship between verbs in *-an* verb type (6) and their (non-)intrinsic undergoer arguments

Non-actor clause type	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un		• (Irrealis)	*sa*	Yes (Ground)
-an	•	• (Realis)		
s-	---	---	---	(No (Figure"))

(6.29) Conceptual representation for verbs in the *-an* verb type (6)

Based on three factors, i.e., the conceptualization of their undergoers, the spatial arrangement of entities in events and the morphosyntactic representation for verbs, the *-an* verb type (6): [Undergoer as Ground in *Fixedness* schema] is distinguished. Verbs like *maki'* 'exist', *uluw* 'find out', *krayas* 'cross over' etc. belong to this type.

The intrinsic undergoer is conceptualized as the Ground and functions to anchor the existence or movement of the Figure, which refers to the participant who performs an action in relation to Ground, and is symbolized as F^A, a composite of actor and Figure.

The undergoer is encoded as a Loc(2) *sa*-marked argument in an EIC clause. When expressed in dyadic transitive clauses, a tight relationship between the intrinsic undergoer and the *–an* clause is then established in realis events. The undergoer also occurs as the subject in an irrealis transitive clause with the *-un* form of verbs as
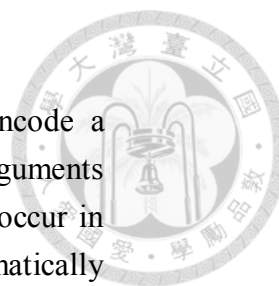
the predicate.

With regard to the *s*- clause type, it is used to encode a beneficiary argument; however, like most Nom-marked arguments in a *s*- clause structure, the argument is not permitted to occur in an EIC and its presence in a *s*- clause structure is automatically insured.

6.8 *-an* verb type (7): [Undergoer as Ground in *Placement (II)* schema]

Verbs *kita'* 'see', *pung* 'hear; listen', *syaq* 'laugh', etc. are used to illustrate a situation in which an actor directs his or her attention or an abstract entity like content to another participant. Either the attention or the abstract entity can be construed as a force, which refers to the information entailed by the semantics of verbs. For example, sound along with funny content released to the undergoer is implied from the verb *syaq* 'laugh'; as a result, taking the valency into account, the verbs in question are bi-valent. One core argument is the actor, and the other is the undergoer. Moreover, in terms of Talmy's Figure-Ground framework, the undergoer can be conceptualized as Ground, while force, Figure. In other words, verbs encoding their argument in this way are classified as **the *-an* veb type (7): [Undergoer as Ground in *Placement (II)* schema].** The spatial and force relationship between participants in events under investigation can then be schematized below:
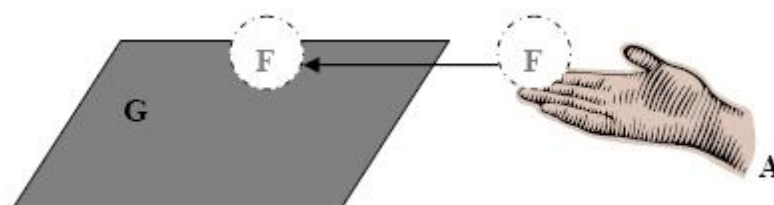

Fig. 6.7: *Placement (II)* schema

221

In Fig. 6.7, the gray mark on the symbol "F" symbolizes its abstract status. The Figure entity, i.e., force, is released from the actor and delivered to the Ground entity. The shade area around G means that it is the entity highlighted in a transitive event. Other verbs like *talam* 'taste; try', *sok* 'smell', *'syang* 'bother', etc. are also subsumed under this verb type. More examples for the *Placement (II)* schema can be seen in Appendix I. Note that these verbs refer to either are perceptual events (e.g., *talam* 'taste; try', *sok* 'smell', and *kita'* 'see') or communicative activities (e.g., *cisal* 'chat with').

Now let us proceed to show how the events are encoded morphosyntactically. (6.30) illustrates the perceptual event of seeing in various voice forms of the verb *kita'* 'see':

(6.30) *kita'* 'see'

a. nyux=ku   mita'   sa   biru'.
ASP=1SG.GEN m.see   LOC book
'I am reading (a) book.'

b. blaq   kt-an   qu'   biru'   qa'.
good   see-an   NOM   book   DEM
'The book is good to read.'

b'. *blaq   kt-on   qu'   biru'   qa'.
good   see-un   NOM   book   DEM
'The book is good to read.'

c. wal=mu   kt-an   qu'   biru'   qa'.
ASP=1SG.GEN see-an   NOM   book   DEM
'I have read the book (before).'

c'. kt-on=saku'=nya'   na'.
see-un=1SG.NOM=3SG.GEN   still
'He will still visit me.'

d. s-kita'=maku'   biru'   qu'   kita'   roziq   qani'.
    s-see=1SG.GEN   book   NOM   mirror eye   this
    'I used this pair of glasses to read books.'

e. s-kita'=maku'   sa   yaki'   cyux m-nbu' qu' yaya'=mu.
    s-see=1SG.GEN   LOC grandmother   ASP   m-sick NOM mother=1SG.GEN
    'I saw/visited (the) sick grandmother for my mother.'

In (6.30a), the only undergoer argument of the verb *kita'* 'see', *biru'* "book", is Loc(2) *sa*-marked in an EIC clause structure. In (6.30b), the undergoer is an evaluated target in a *blaq* construction, in which it is the -*an* form of a verb employed, instead of the -*un* form. In (6.30c), the undergoer argument is nominative-marked in an -*an* clause structure for an realis event. Again, this shows a tight inherent relationship between the undergoer and the -*an* form of the verb *kita'* 'see'. The verb's -*un* form is used to encode an irrealis event, as in (6.30c').

In (6.30d), an instrument argument is assigned nominative case and its referent is highlighted in the event encoded by the *s-* form of the verb *kita'* 'see', i.e., *s-kita'* 'see'. In (6.30e), a beneficiary argument marked by nominative case is highlighted in a *s-* clause structure. Table 6.17 summarizes the preceding discussions:

Table 6.17: The interaction of concepts, undergoers, case-making, and four construction types for *-an* verb type (7): [Undergoer as Ground in *Placement (Ⅱ)* schema]

	Concept	EIC construction & case marking	*blaq* construction	Plain UV construction (reality status)
I	**Ground** →	Intrinsic undergoer →	*sa* NP →	*-un* / *-an*	*-un* (Irrealis) / *-an* (Realis)
Ⅱ	Figure	(Implied from the semantics of verb)	---	---	---
Ⅲ	(Figure'= Instrument)	(Other undergoer participant 1, but demanded in extra context)	---	*s-* (2)	*s-* (2)
Ⅳ	Figure" (= Benefactee)	---	---	---	*s-* (3)

In Table 6.17, there are four points needed to note. The first point is about (I). Ground is taken as the intrinsic undergoer of the verb *kita'* 'see' and is specified as a Loc(2) *sa*-marked argument in an EIC; furthermore, in both a *blaq* construction and a realis plain UV construction, the intrinsic undergoer is specified by the *-an* form of verbs of this type. Their *-un* form is used to encode an irrealis transitive event.

The second point is about the concept of Figure. As shown in (Ⅱ), the Figure concept is not specified lexically or structurally. However, its existence is inferable based on the process of activity performance.

The third point is concerned with instrument. As shown in (Ⅲ), an instrument object is not an intrinsic undergoer of the verb *kita'* 'see'. However, based on the spatial arrangement of participants or entities in events, it can be conceptualized as another Figure entity (Figure'). In either a *blaq* or a plain UV construction, the *s-* form is
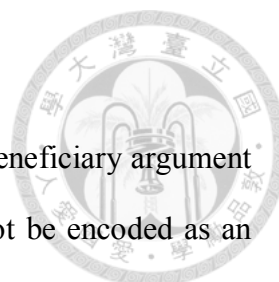
employed to highlight the instrument argument.

The last point has to do with a beneficiary argument. Since a beneficiary argument cannot be justified based on an EIC of the verb *kita'* 'see', it cannot be encoded as an undergoer argument in either a *blaq* or a plain UV construction; instead, it can only occurs as the subject in a *s-* clause structure.

Table 6.18 is a simplified version of Table 6.17:

Table 6.18: A syntactico-semantic template for the relationship between verbs in *-an* (7) class and their (non-)intrinsic undergoer arguments

| Non-actor clause type	*blaq* construction	Plain UV construction	Case marking in EIC	As intrinsic undergoer (Concept)
-un *-an*		(Irrealis) (Realis)	*sa*	Yes (Ground)
s- (2)			---	(No (Figure'))
s- (3)	---	---	---	(No Figure")

(6.31) **Conceptual representation for verbs in the *-an* (7) class**

Based on three factors, i.e., the conceptualization of their undergoers, the spatial arrangement for entities in events and the morphosyntactic representation for verbs, verbs like *cisal* 'chat with', *kita'* 'see', *sok* 'smell' are grouped into the *-an* verb type (7): [Undergoer as Ground in *Placement (Ⅱ)* schema].

The undergoer is conceptualized as the Ground which exists somewhere and is realized as a receiver bearing force released from the actor. When appearing in an EIC, it is Loc(2) *sa*-marked. Figure then refers to force of the sort; however, since it is implied from the semantics of verbs, it is not encoded as an argument structurally.

When expressed in dyadic transitive clauses, a tight relationship between the undergoer and the *-an* clause is

225

established in a realis event. The undegoer also appears as the subject in an irrealis transitive clause, but the language employs the *-un* form for the situation. With regard to the *s-* clause type, it is used to encode either an instrument or a beneficiary argument; however, like most Nom-marked arguments in a *s-* clause structure, the argument in the same semantic category is not permitted to occur in an EIC, but its presence in a *s-* clause structure is automatically insured.
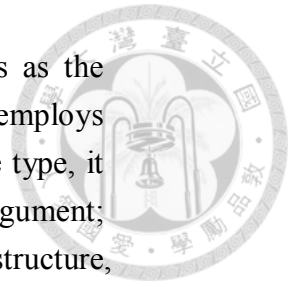
6.9 Concluding remarks on the seven verb types in the *-an* class

In this chapter, based on three factors, i.e., the conceptualization of their undergoers, the spatial arrangement for entities in events, and the morphosyntactic representation for verbs, I have distinguished seven *-an* verb types in Squliq Atayal. Similarities among the seven *-an* very types are:

(6.31) a. Their intrinsic undergoer in events encoded by the verbs in question is conceptualized as the Ground.

b. The Ground undergoer (in O role) takes the role of an evaluated target in a *blaq* construction with the *-an* form of verbs employed.

c. The Ground undergoer (in O role) occurs as the most salient in realis events encoded by the *-an* form of verbs.

d. On the basis of the statements in (b) and (c), an inherent relationship between the Ground undergoer and the *-an* form of verbs is then established; that is the main reason about why these verbs are classified into the *-an* class.

e. The *-un* form of verbs is also employed to specify the subject role of the Ground undergoer (in O role); however, that is restricted to irrealis events, whose factual basis is not solid enough to be an indicator of verb type.

With regard to their differences, the main one is the nature of their schema type. A wide variety of factors used to determine the formation of schema have also been

discussed in previous sections. Table 6.19 below provides important characteristics of seven schemas or verb types, as an aid to understanding each type in greater details:
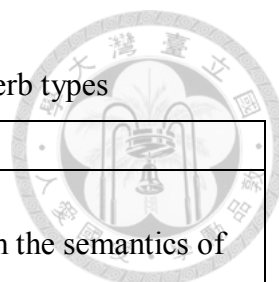
Table 6.19: Important characteristics of seven schemas/verb types

Verb type	Characteristics
-an verb type (1): [Undergoer as Ground in *Placement* (Ⅰ) schema]	1. Figure as a concrete object 2. Figure as a component implied from the semantics of verbs 3. Three main word formation processes involved in the verb type
-an verb type (2): [Undergoer as Ground in *Removal* schema]	1. Figure and Ground in a part-whole relation 2. Figure as an expectable component of Ground
-an verb type (3): [Undergoer as Ground in *Indivisibility* schema]	1. Figure and Ground in a part-whole relation
-an verb type (4): [Undergoer as Ground$^{\text{Figure}}$ in *Possession* schema]	1. Figure and Ground in an inherent possessive or a part-whole relation 2. The intrinsic undergoer is a possessive NP, in which the head is the possessed, and the modifier is the possessor 3. There is an asymmetry between conceptualization and morphosyntax of the constructions 4. The concept of instrument is not encoded as an argument of verbs in this type 5. The beneficiary argument is also simultaneously the causee argument
-an verb type (5): [Undergoer as Ground in *Mediation* schema]	i. Ground can function as instrument ii. Actor and Figure are in a reflexive relation; as a result, the Figure is symbolized as F^A
-an verb type (6): [Undergoer as Ground in *Fixedness* schema]	1. Ground is fixed to some location; because of this, the verb type is the very opposite of the *-un* verb type (5): [Undergoer as Figure in *Self-moving* schema] 2. Actor and Figure are in a reflexive relation; as a result, the Figure is symbolized as F^A
-an verb type (7): [Undergoer as Ground in *Placement (Ⅱ)* schema]	1.Figure as an abstract object 2. Figure as a component implied from the semantics of verbs

228

CHAPTER 7

THE *-un* CLASS

7.1 Introduction

In this chapter we examine eight types of the *-un* class: *-un* verb type (1): [Undergoer as Figure in *Transformation* schema], *-un* verb Type (2): [Undergoer as Figure in *Taking* schema], *-un* verb type (3): [Undergoer as Figure in *Gathering* schema], *-un* verb Type (4): [Undergoer as Figure in *Causative motion* schema], *-un* verb type (5): [Undergoer as Figure in *Self-moving* schema], *-un* verb type (6): [Undergoer as Figure in *Cognition* schema], *-un* verb type (7): [Underger as Figure in *Stimulus* schema], and *-un* verb type (8): [Undergoer as Figure in *Triggerin*g schema].

7.2 *-un* verb type (1): [Undergoer as Figure in *Transformation* schema]

Verbs like *pluk* 'burst; break', *kat* 'bite', *tlom* 'burn' and so on are used to express a situation in which the actor exerts his/ her force, either by hand or with an instrument, upon an object, and usually causes a partial or a radical transformation of the object, but the original form of the object is not recoverable. Take a balloon-bursting event as an example. The event is encoded by the verb *pluk* 'burst; break'. In this event, a person takes a needle and stabs it into a balloon, causing the balloon to deform into an irregularly shaped object; therefore, it is impossible to restore it to its original, round, shape. Events of this sort can be represented in the following event structure template:

(7.1) [Actr. ACT<manner>] CAUSE [Undr. BECOME<state>]

Based on (7.1), it is easily noticed that the transformed object is the only undergoer;

based on the sketch of Squliq Atayal grammar provided in Chapter 2, the undergoer is Loc2 *sa/squ'*-marked in an EIC. In terms of Talmy's framework, since it undergoes self-referencing motion, it is then regarded as a meta-Figure. Morphosyntactically, the undergoer is highlighted in the *-un* clause of the verb. There is then a link between the notion of transformation, the undergoer Figure, and the *-un* form of the verb tightly established in the mind of the language speaker. In other words, verbs encoding their undergoer argument in this way are grouped into the ***-un* verb type (1): [Undergoer as Figure in *Transformation* schema]**. The balloon-bursting event can be schematized below:
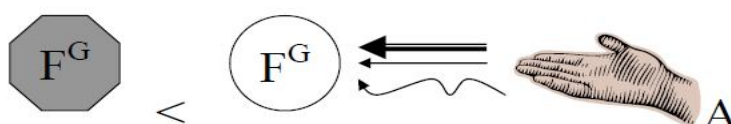

Fig. 7.1: *Transformation* schema

Fig. 7.1 displays a typical scenario for object transformation with four obligatory participants involved, i.e., an actor, an object before undergoing change, an object after transformation, and an external force. As depicted in Fig. 7.1, via the exertion of force upon an object (i.e the Figure entity) (or an amalgam of Figure and Ground; shown as a shaded circle and abbreviated as F^{G31} in Fig. 7.1), such as biting, burning, breaking etc. signified in terms of a straight line, a curvy line, or a thick line to signify various manners of transformation), an actor (indicated in terms of a hand symbol and

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[31] "F^G" is designed here to express the idea that from a certain perspective, a Figure entity and a Ground entity may be essentially identical, so that they physically form a unit. However, the notion of Figure remains the more prominent based on the observation that a change on the Figure entity implies a change on the Ground entity. As a result, we use the symbol F^G, in which there is a superscript ^{G}, to express an asymmetrical relationship between the two cognitive concepts. Moreover, the character F^G may also be used to indicate that the Figure undergoes self-referencing motion or activity (Cf. Talmy 2000:329-333). In other words, the Figure entity is its own Ground.

abbreviated as A) causes the Figure to change in form, where the symbol of hexagon stands for the change. Events encoded by verbs like *pluk* 'burst; break', *kat* 'bite', *tlom* 'burn' etc. are identical in the way their participants structure the event, but differ in the way the force is exerted by the actor upon the Figure.

Let us now examine how the *Transformation* schema is implemented in the morphosyntactic representations for verbs. Examples in (7.2) illustrate various aspects of a (balloon-)bursting event, including its reality status.

(7.2) *pluk* 'burst; break'
a. nyux=saku' mluk (na' rom) sa bubul qa' la'.
   ASP=1SG.NOM m.burst (GEN needle) LOC balloon DEM FP
   'I'm bursting the balloon (with (a) needle).'

b. blaq plk-un qu' bubul.
   good burst-un NOM balloon
   'The balloon easily burst.'

b'. *blaq plk-an qu' bubul.
    good burst-an NOM balloon
    'The balloon easily burst.'

c. wal=mu plk-un qu' bubul qa' la'.
   ASP=1SG.GEN burst-un NOM balloon DEM FP
   'I have burst the balloon.'

c'. plk-un=mu qu' bubul qa' kira'.
    burst-un=1SG.GEN NOM balloon DEM later
    'I will burst the balloon.'

c''. plk-an sa bubul qu' laqi' qa'.
     burst-an LOC balloon NOM child DEM
     'Burst (the) balloon for the child.'

231

d. blaq   s-pluk   bubul   qu'   rom   qa'.
   good   s-burst   balloon   NOM   needle   DEM
   'The needle is (a) good (tool) for bursting (a) balloon.'

e. wal=mu   s-pluk   bubul   qu'   rom   qa'.
   ASP=1SG.GEN   s-burst   balloon   NOM   needle   DEM
   'I have burst (the) balloon with the needle.'

f. wal=mu   s-pluk   bubul   qu'   laqi'   qa'.
   ASP=1SG.GEN   s-burst   balloon   NOM   child   DEM
   'I have burst (the) balloon for the child.'

(7.2a) describes a situation in which an actor, coded by *=saku'* '1st person singular nominative pronoun', is exerting his/her force upon the undergoer entity, i.e., *bubul qa* 'the balloon', marked with Loc(2), resulting in physical change of the undergoer entity.

Both (7.2b) and (7.2b') represent the *blaq* construction as a diagnostic test: the *-un* form of the verb *pluk* 'burst; break' is acceptable, as shown in (7.2b), but its *-an* form is not, as shown in (7.2b'). This means that it is the *-un* form of the verb *pluk* 'burst; break', rather than its *-an* form, that highlights the undergoer participant in a (balloon-)bursting event.

(7.2c') contrasts with (7.2c) in reality interpretation. As we can see from (7.2c), the *-un* form is recruited to highlight the undergoer, i.e., *bubul qa* 'the balloon', in a realis event, and is identical to (7.2c') in highlighting the undergoer. As for the *-an* form of the verb, it is used in a benefactive applicative construction where it is the beneficiary participant that is highlighted, as shown in (7.2c''). In other words, the *-an* voice form of the verb is never used to highlight the undergoer. Also note that the applicative *-an* construction is specifically used for highlighting the beneficiary argument for all the verbs in Squliq Atayal.

Both (7.12d) and (7.2e) illustrate a situation where an instrument NP is highlighted
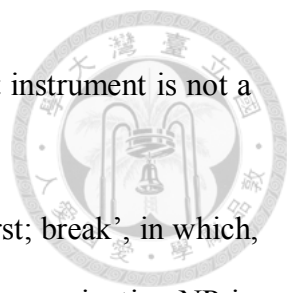
in events encoded by the *s-* form of the verb *pluk* 'burst; break'. But instrument is not a

core argument for the verb in question.

(7.2f) also illustrates the use of the *s-* form of the verb *pluk* 'burst; break', in which,

the nominative case is assigned to the beneficiary argument and the nominative NP is

not the undergoer in a respective event.

To sum up the preceding discussion on (7.2), we construct the following table:

Table 7.1: The interaction of concepts, undergoers, case-making, and four construction
types for *-un* verb type (1): [Undergoer as Figure in *Transformation* schema]

	Concept	EIC construction & case marking	*blaq* construction		Plain UV construction (reality status)	Applicative UV construction
I	**Figure**	Undergoer ➡️	*sa* NP ➡️	*-un* ➡️	*-un* (Irrealis)/ (Realis)	---
				-an	*-an*	
II	Figure' = Instrument ➡️	(Other undergoer participant 1, but demanded in extra context)	(*na'* NP) ➡️	(*s-*) ➡️	---	*s-*
III	Figure" = Benefactee	---	---	---	--- ➡️	*s-*

As shown in Table 7.1, the syntax of an EIC clause shows that the undergoer for a

(balloon-)bursting event is coded as an Loc(2) *sa*-marked argument, but the process of

conceptualizing it as the Figure must have taken place before syntactic formulation of

the sentence. The undergoer as the Figure gets highlighted only when it is marked with

nominative in an -*un* clause, such as the *blaq* construction in (7.2b) or a plain UV construction, as in (7.2c) and (7.2c'). This is as displayed in terms of (I) in this table. For a typical (balloon-)bursting event, all expressions in (7.2) are designed to show how the two core participants, i.e., the actor and the undergoer, are specified syntactically. Other peripheral participants also occur in these expressions but are coded differently from the core ones. As displayed in (II), the instrument argument is marked with nominative in an applicative UV *s-* construction or marked with the Gen(2) *na'* in an EIC clause. (III) is concerned with a peripheral argument, in which a beneficiary argument is marked with nominative, also an applicative UV *s-* construction, but it is prohibited from occurring in an EIC construction. Conceptually, the beneficiary participant is a Figure entity, since it is interpretable as a cause driving the occurrence of the event in question.

Table 7.2 straightforwardly shows a tight relationship between the undergoer (i.e., the Figure) and the -*un* form of verbs under this type in question, like *pluk* 'burst; break'.

Table 7.2: A syntactico-semantic template for the relationship between verbs in -*un* verb type (1) and their (non-)intrinsic undergoer arguments

Construction type\ Verb form	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-*un*	●——————● (Irrealis; realis)		*sa*	Yes (Figure)
-*an*	---	---	---	---
s-	●	---	*na'*	No (Figure')

(7.3) below summarizes the preceding discussions:

(7.3) Conceptual and morphosyntactic representations of the participants

234

in events encoded by verbs in *-un* verb type (1)

In events encoded by *pluk* 'burst; break', *lom* 'burn', and *kat* 'bite', their core participants are in a relation in which the Actor exerts his/her force upon the undergoer, leading to form change on the latter object. Namely, the participants, force and the activity together construct a Transformation schema. Since undergoing a self-referencing motion, the undergoer is conceptualized as meta-Figure (or an amalgam of Figure and Ground). This is the aspect regarding conceptualization.

As for morphosyntactic representation, in an EIC clause structure, the undergoer is *sa*-marked. When expressed in dyadic transitive clauses, the undergoer's saliency is specified in terms of verbs' *-un* form, a tight relationship between the undergoer and the *-un* clause is thereby built. If the undergoer appears as the more salient in a non-neutral context, such as in an irrealis event, it remains the *-un* form employed.

With regard to the *s-* clause type, there are two functions: one is used to highlight an instrument entity, while the other, a benefactee participant. The instrument entity is also attested in *blaq* construction but is not a semantically-core undergoer for verbs in this type. As for the beneficiary argument, its presence is prohibited from an EIC and its presence in a *s-* clause is automatically assured

7.3 *-un* verb type (2): [Undergoer as Figure in *Taking* schema]

Events encoded by *beng* 'hold', *kyap* 'catch', *'agal* 'take' etc. can be used to describe a situation where an actor takes an object by hands in terms of various manners. The semantics of verbs' base entails the manner of actions, usually referring to different actions performed by hands. Besides, when force is exerted upon the object, the actor's hands are keeping in contact with it and the object does not undergo any essential change, including its form, otherwise, events of this sort are instances of the foregoing *transformation* schema. Following this idea, the two properties of the events, "handcontact" and "intactness", are identified. The former is associated with manner

information, and the latter, result. Since the events end in the state of some object taken by hands from somewhere, their structure template is identical to that for events under *Transformation* schema, as repeated below:

(7.4) (=7.1) [Actr. ACT<manner>] CAUSE [Undr. BECOME<state>]

In (7.4), it is easily noticed that there are two intrinsic participants in events in question, namely, an actor and an undergoer. The actor participant is specified as the subject in a ((-)*m*-) clause structure, and the undergoer participant is assigned the role of subject in an -*un* clause structure. Based on the spatial organization of participants in the events, the undergoer participant undertakes self-reference; henceforth, according to Talmy (2000), the participant is conceptualized as Figure (or a self-referencing Figure). Take all into account. Verbs used to encode events in question, e.g., *beng* 'hold', *kyap* 'catch', *liliq* 'lift up' etc., are categorized into **the -*un* verb type (2): [Undergoer as Figure in *Taking* schema]**.

Applying Talmy's Figure-Ground dichotomy here, we get the following figure schematizing the events in question:
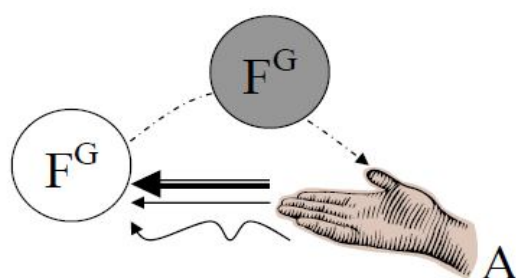

Fig. 7.2: *Taking* schema

In Fig. 7.2, an actor (iconed as a hand and characterized as A) uses his hand(s) to take a
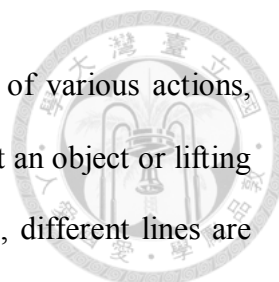
Figure object (iconed as a round and characterized as F) in terms of various actions, such as holding implying an action of using hands or arms to support an object or lifting up implying using hands to move an object upwards. In this figure, different lines are designed for showing these various actions upon Figure object.

Some instances of the *Taking* schema are provided in Table 7.3 below, along with their respect using condition:

Table 7.3: Context examples for the use of events encoded by the *-un* form of verbs in this type

Squliq Verb	English Gloss for Squliq verb	Paraphrase of event
beng	To hold	Farmer wife (i.e., the Actor) held a rice bag (i.e., the Undergoer) (tightly) in order to let the farmer to fill it with rice
hbyat	To pull out	Farmer (i.e., the Actor) pulled carrots (i.e., the Undergoer) out of the earth
kyap	To catch	Keeper (i.e., the Actor) caught chicken (i.e., the Undergoer) roaming through a field in order to have them into a henhouse
qap	To draw out	Worker (i.e., the Actor) drew out spikes (i.e., the Undergoer) completely from a board

Let's proceed to how the events are represented morphosyntactically in the language. Consider the taking event, as in (7.5):

(7.5) *'agal* 'take'
a. nyux=ku   magal   sa   bway   na'   p<in>uya'=naha'.
     ASP=1SG.NOM   m.take   LOC   fruit   GEN   <PST>plant=3PL.GEN
     'I am taking/picking the fruit they plant.'
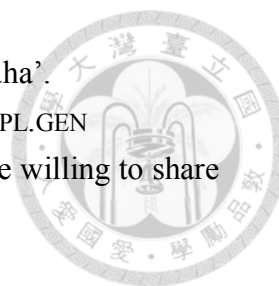
b. blaq gal-un qu' bway na' p<in>uya'=naha'.
good take-un NOM fruit GEN <PST>plant=3PL.GEN
'It is easy to take/obtain the fruit they plant (because they are willing to share fruit with people).'

b'. *blaq gal-an qu' bway na' p<in>uya'=naha'.
good take-an NOM fruit GEN <PST>plant=3PL.GEN
'It is easy to take/obtain the fruit they plant.'

c. wal=mu gal-un qu' bway na' p<in>uya'=naha' la'.
ASP=1SG.GEN take-un NOM fruit GEN <PST>plant=3PL.GEN FP
'I have ever taken/picked the fruit they plant.'

c'. gal-un=mu qu' bway na' p<in>uya'=naha' kira'.
take-un=1SG.GEN NOM fruit GEN <PST>plant=3PL.GEN later
'I will take/pick the fruit they plant.'

d. wal=mu s-'agal sa bway na' p<in>uya'=naha' qu'
ASP=1SG.GEN s-take LOC fruit GEN <PST>plant=3PL.GEN NOM
yaya'=mu.
mother=1SG.GEN
'I have taken/picked the fruit they plant for my mother (and gave her, too).'

In (7.5a), the nominative-marked actor is encoded as the subject in the *m-* clause structure there, while the intrinsic, Loc(2)-marked NP *bway na' p<in>uya'=naha'* 'the fruit they plant' is the undergoer. In (7.5b), (7.5c) and (7.5c'), the undergoer is marked nominative and is the subject in a *blaq* construction, a realis and an irrealis UV clause, respectively. A common point for the three examples is, it is the *-un* form of the verb *'agal* 'take' recruited into the constructions there. This point shows straightforwardly a tight link between the intrinsic undergoer argument and the *-un* form of the verb. (7.5b') demonstrates that the verb's *-an* form is not selected as the verb form used in evaluating the O role undergoer in a *blaq* construction; by means of this, it

can be seen that the -*an* form has no tight relation to the intrinsic undergoer morphosyntactucally. In (7.5d), it is a *s-* clause structure in which a beneficiary argument is nominative-marked and is the subject there; however, as illustrated in the event structure template ((7.4)) and the EIC in (7.5a), the argument not the argument required by the valency of *'agal* 'take'.

(7.6) illustrates the pulling out event in various forms of the verb *hbyat* 'pull out':

(7.6) *hbyat* 'pull out'
a. musa'=ku   h<m>byat   (na' payah)   sa   topu'
    ASP=1SG.NOM   <m>pull.out   GEN spud   LOC carrot
    p<in>uya'=su.
    <pst>plant=2SG.GEN
    'I am going to pull out the carrots you planted (with (a) spud).'

b. blaq   hbyat-un   qu'   topu'   p<in>uya'=su.
    good   pull.out-un   NOM   carrot   <PST>plant=2SG.GEN
    'It is easy to pull out the carrots you planted.'

b'. *blaq   hbyat-an   qu'   topu'   p<in>muya'=su.
    good   pull.out-an   NOM   carrot   <PST>plant=2SG.GEN
    'It is easy to pull out the carrots you planted.'

c. wal=mu   hbyat-un   qu'   topu'   p<in>uya'=su.
    ASP=1SG.GEN pull.out-un   NOM   carrot   <PST>plant=2SG.GEN
    'I have pulled out the carrots you plant.'

c'. hbyat-un=mu   qu'   topu'   p<in>uya'=su   kira'.
    pull.out-un=1SG.GEN   NOM   carrot   <PST>plant=2SG.GEN   later
    'I will pull out the carrots you planted.'

d. nyux=mu   s-hbyat   topu'   qu'   payah   qa'.
    ASP=1SG.GEN   s-pull.out   carrot   NOM   spud   DEM
    'I am using the spud to pull out carrots.'

239

e. wal=mu   s-hbyat   topu'   qu'   ciwas.
    ASP=1SG.GEN   s-pull.out   carrot   NOM   PN
    'I have pulled out carrots for Ciwas.'

In (7.6a), the actor, *ku* '1st person singular nominative pronoun', is encoded as the subject of the verb *h<m>byat*, and the undergoer NP *topu' p<in>uya'=su* 'the carrots you planted' is Loc(2)-marked. Comparing (7.6b) with (7.6b'), we observe that the language employs the *-un* form of the verb *hbyat* 'pull out', instead of its *-an* form to evaluate the undergoer in a carrot-pulling-out event. By means of this, for this verb, there is a tight link between the undergoer and the *-un* form. Likewise, the verb's *-un* form is used to highlight the undergoer *topu' p<in>uya'=su* in a realis event as in (7.6c) and in an irrealis event as in (7.6c'). (7.6d) and (7.6e) are not related to the specification of the undergoer; rather, it is concerned with peripheral arguments, i.e., an instrument and a beneficiary argument, as a nominative-marked nominal in a respective *s-* clause structure.

Table 7.4 is a summary of the preceding discussions on (7.5) and (7.6):

Table 7.4: The interaction of concepts, undergoers, case-making, and four construction types for -un verb type (2): [Undergoer as Figure in *Taking* schema]

	Concept	EIC construction & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Figure** → Undergoer		*sa* NP → -un →	-un (Irrealis)/ (Realis)	---
			-an	-an	
II	Figure'= Instrument	Other undergoer participant 1, but demanded in extra context	*na'* NP →	(*s-*)	---	*s-*
III	Figure" = Bene- factee)	---	---	---	---	*s-*

In Table 7.4, (I) is concerned with the morphosyntactic representation for the intrinsic undergoer, which, conceptually, is a Figure entity. In an EIC clause, it is Loc(2)-marked. In a *blaq* construction, the language employs the -*un* form of verbs under investigation to the *blaq* construction test. Furthermore, the Figure undergoer is the subject in an -*un* clause structure used for encoding not only an irrealis but also a realis event. (II) is to indicate how a peripheral argument, i.e., an instrument argument, is realized morphosyntactically. It is another Figure concept and can appear as a genitive 2-marked argument in an EIC and is encoded as the subject of the *s-* form of verbs in the verb type. (III) involves the encoding of a beneficiary argument, it is nominative-marked in a *s-* clause structure, but is not an intrinsic argument required by the verb's valency.

Table 7.5 is a simplified version of Table 7.4:

Table 7.5: A syntactico-semantic template for the relationship between verbs in *-un* verb type (2) and their (non-)intrinsic undergoers

Non-actor clause type	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un	●————————● (Irrealis; realis)		*sa*	Yes (Figure)
-an	-	-		
s-	(●)————————●		---	No (Ground')

In Table 7.5, a tight relation between the intrinsic undergoer and the *-un* form of verbs in *-un* verb type (2) is straightforwardly uncovered.

(7.7) summarizes the preceding discussions

(7.7) Conceptual and morphosyntactic representation for their participants in events encoded by verbs in the *-un* verb type (2)

In events encoded by *beng* 'hold', *kyap* 'catch' and *liliq* 'lift up', their core participants are in a relation that the actor exerts his or her force upon the intrinsic undergoer to have it on hands or arms, that causes no any essential on the undergoer. In light of this, the participants, force and the activity together construct a Transformation schema. Since small enough in size to be affected, the undergoer is conceptualized as Figure (or an amalgam of Figure and Ground or more precisely a self-referencing Figure). This is the aspect regarding conceptualization.

As for morphosyntactic representation, in an EIC clause structure, the intrinsic undergoer is Loc(2)-marked. When expressed in dyadic transitive clauses, the undergoer is highlighted in terms of verbs' *-un* form, a tight relationship between the undergoer and the *-un* clause is so that built, which must be in a neutral context. If the undergoer is highlighted in a non-neutral context, such as in an irrealis event, it remains the *-un* form employed.

With regard to the *s-* clause type, it conveys only one

function, i.e., to highlight a benefactee participant. When coded as a beneficiary argument in a clause, its presence is prohibited from an EIC and its presence in a *s-* clause is automatically activated.
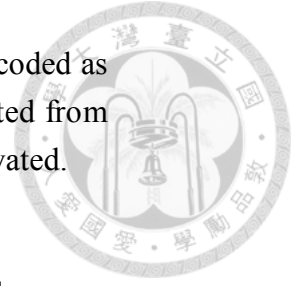
7.4 *-un* verb type (3): [Undergoer as Figure in *Gathering* schema]

In certain events, entities are gathered together into a larger unit by an actor. Mixing is such an event. In a mixing event, two or more entities are put together. The event structure template for these events is identical to that for the events encoded by verbs in two foregoing verb types, namely, it is the [Actr. ACT<manner>] CAUSE [Undr. BECOME<state>] template, in which an actor and an undergoer are two intrinsic arguments, while manner and state are information entailed from the semantics of the base of verbs. Since the most remarkable part for events of this sort is the gathering of affected entities, we call the new schema *Gathering* schema. The schema can be diagrammed below:
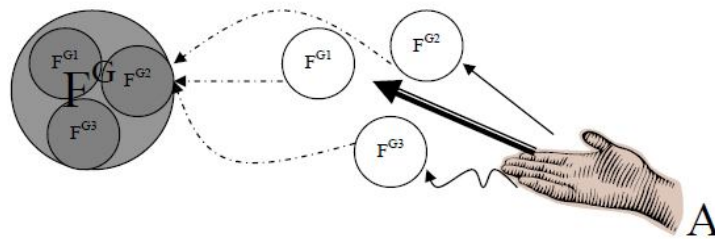
Fig. 7.3: *Gathering* schema

Fig. 7.3 depicts a scene where an actor (A) takes two or more small entities (represented by F^G) combine them and mix them into a bigger entity. Since these small entities are movable, in terms of Talmy's framework, they are conceptualized as meta-Figure, F^G. Moreover, the Figure entities, as affected entities in the Gathering schema, are typically highlighted in a *-un* voice construction, and a tight relation between the Figure and the *-un* form of verbs is then established. Taking both the

243
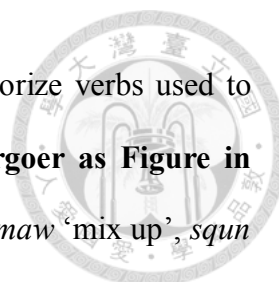
conceptual and the structural representation into account, we categorize verbs used to encode such a Gathering event as the ***-un* verb type (3): [Undergoer as Figure in *Gathering* schema]**. Verbs instantiating the *Gathering* schema are *'imaw* 'mix up', *squn* 'gather' and *'ubuy* 'link; join'.

(7.8) exemplifies how various aspects of the mixing event, including its reality status, are realized structurally.

(7.8) *'imaw* 'mix up'
  a.   nyux=saku'   '<m>imaw   sa   bazing.
       ASP=1SG.NOM <m>mix   LOC egg
       'I am whipping egg. (Lit., I am mixing egg yolk with egg white.)'

  a'. cyux=su   '<m>imaw   sa   qara'   na' kaway   ru
       ASP=2SG.NOM <m>mix   LOC   branch GEN plum   and
       guilux   la'; iyat   p-qbaq-un.
       peach   FP; NEG   CAUS-able-un
       'You mixed plum's branches and peach's branches; (I) am unable to distinguish them.'

  b.   blaq   mag-un qu'   bazing qa'.
       good   mix-un NOM   egg   DEM
       'The egg was whipped easily. (Lit., It is easy to mix egg yolk with egg white.)'

  b'. *blaq   mag-an qu'   bazing qa'.
       good   mix-an NOM   egg   DEM
       'The egg was whipped well. (Lit., It is easy to mix egg yolk with egg white.)'

  c.   wal=mu   mag-un   qu'   bazing qa'.
       ASP=1SG.GEN mix-un   NOM   egg   DEM
       'I have whipped the egg. (Lit., I have mixed egg yolk with egg white.)'

  c'. mag-un=mu   qu'   bazing qa'   kira'.
       mix-un=1SG.GEN   NOM   egg   DEM   later

'I will whip the egg (, i.e., I will mix egg yolk with egg white).'

d. blaq   s-'imaw   qu'   kway   qa'.
    good   s-mix   NOM   chopstick   DEM
    'The pair of chopsticks is a good tool (to whip eggs).'

e. nyux=mu   s-imaw   bazing   qu'   kway   qa'.
    ASP=1SG.GEN s-mix   egg   NOM   chopstick   DEM
    'I whipped eggs with the pair of chopsticks.'

f. wal=mu   s-'imaw   bazing   qu'   yaya'=mu.
    ASP=1SG.GEN s-mix   egg   NOM   mother=1SG.GEN
    'I have whipped eggs for my mother.'

In (7.8a), an EIC, two types of participants are found: one is the actor, coded as a nominative argument, and the other is undergoer, coded as a Loc(2) argument. Notice that the referent specified by the Loc(2) NP here is a composite of two substances, egg yolk and egg white. As mentioned before, the two substances are equal in their conceptual significance with respect to the event, so they are grouped together as a unit. This idea is clearly demonstrated in (7.8a'), where the conjoined NP *qara' na' kaway ru guilux* 'branches of the plums and peaches' specifying two different types of entities, i.e., plum's branches and peach's branches, and is marked by Loc(2).

(7.8b) and (7.8b') illustrate how the verb *'imaw* 'mix up' interacts with the *blaq* construction. We observe that the *-un* voice form of the verb must be used, but not the *-an* form. Thus the *blaq* construction is a diagnostic test for taking the verb *'imaw* 'mix up' as belonging to the *-un* verb type. The structure used to express a realis mixing event provides another basis for verb typing, as shown in (7.8c). In (7.8c), *bazing* 'egg', the undergoer NP, is highlighted in the realis event associated with the verb's *-un* form; as a result, we are sure that *'imaw* 'mix up' belongs to the *-un* class. In (7.8c'), the *-un* form
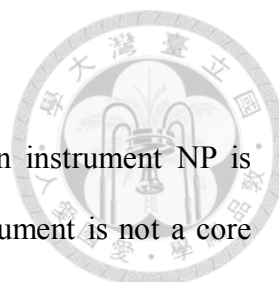
is found also used in an irrealis event.

In both (7.8d) and (7.8e), they illustrate a situation where an instrument NP is highlighted in events encoded by the *s-* form of the verb. But instrument is not a core argument for the verb in question; instead, its presence depends on the context, while egg-whipping needs (a pair of) an eggbeater as an instrument, but branch-mixing does not. In (7.8f), a *s-* clause structure is used to highlight a beneficiary argument. Like the case of instrument, beneficiary is not a core argument for a typical mixing event.

Table 7.6 below is a summary of the preceding discussion on (7.8):

Table 7.6: The interaction of concepts, undergoers, case-making, and four construction types for *-un* verb type (3): [Undergoer as Figure in *Gathering* schema]

	Concept	EIC construction & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Figure** →Undergoer	Loc → (2)	-un →	-un →(Irrealis)/ (Realis)	---
		sa NP	-an	-an	
II	Figure'= Instrument	→ (Other undergoer participant 1, but demanded in extra context)	--- →	s- (2)	--- → s-
III	Figure" = Bene-factee	---	---	---	--- → s-

As can be seen from Table 7.6, the sole undergoer is conceptualized as the Figure

and coded as a Loc(2) argument in an EIC and a nominative argument in a plain UV clause. This is as displayed in (I). The Figure' ((Ⅱ)) and the Figure" ((Ⅲ)) are not core arguments for a typical mixing event and play no role in determining whether a given verb is subsumable under the Gathering schema.

Table 7.7 is a simplified version of Table 7.6:

Table 7.7: A syntactico-semantic template for the relationship between verbs in *-un* verb type (3) and their (non-)intrinsic undergoer arguments

Construction type\ Verb form	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un	●————————● (Irrealis; realis)		*sa*	Yes (Figure)
-an	---	---	---	---
s-	●	---	*na'*	No (Figure'; Figure")

(7.9) summarizes the preceding discussions:

(7.9) Conceptual and morphosyntactic representations for participants in events encoded by verbs in the *-un* verb type (3)

Events encoded by *'imaw* 'mix', *squn* 'gather' and *'ubuy* 'link' instantiate the Gathering schema. In this schema, the actor exerts a force upon the intrinsic undergoer in order to bring some entities together to form a larger entity. The gathering action causes the affected entities to form a unit.

Morphosyntactically, in an EIC clause, the undergoer is *sa*-marked. When the event is expressed in a dyadic transitive clause, the undergoer is highlighted in the *-un* voice construction, and there is a tight relationship between the undergoer and the *-un* clause in a realis event. If the undergoer is to be highlighted in an irrealis event, the *-un* form remains to be the only voice form employed.

With regard to the corresponding *s-* clause, there are two

functions: one is to highlight an instrument entity, and the other, a benefactee participant. The instrument NP appears in the *blaq* construction (34d), but it cannot be considered an intrinsic undergoer in the mixing event. Note that, since the hand is generally regarded as the implicit instrument for most Gathering events, the concept of instrument is not part of the schema. As for the beneficiary argument, its presence is prohibited in an EIC, but its presence in a *s-* clause is obligatory.

7.5 *-un* verb type (4): [Undergoer as Figure in *Causative motion* schema]

Events like pulling, hiding, or rolling an object describe a situation where an actor directly touches upon an object (e.g., a ball) and exerts his force upon it that finally makes it to move to somewhere but the form of the object does not change. The spatial organization of the object is moved toward somewhere by the actor, and the two participants or entities together instantiates a *Causative motion* schema. In terms of Talmy's Figure-Ground framework, the moved object is conceptualized as Figure. The schema can be represented as follows:
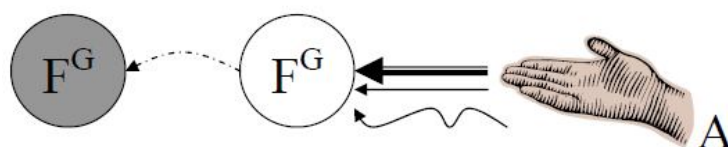
Fig. 7.4: *Causative motion* schema

As in the model shown in Fig. 7.4, the hand icon stands for Actor (A), while F refers to the Figure entity and is the intrinsic undergoer in events symbolized by the schema. The Figure entity is tokenized in two versions to express the change of its position, i.e., one in light shadow means the entity is touched by the actor with force, and the one in dark shadow is designed to show that the entity has been moved somewhere after driven by

248

force released from the actor. Different lines represent different ways the actor may adopt to affect the Figure entity; for example, a straight line may represent the action of pulling. Moreover, since it can be seen in the following discussion that it is the *-un* form of verbs employed to highlight the Figure entity, we identify it as the *-un* verb type (4):

[Undergoer as Figure in *Causative motion* schema].

Let us proceed to look at how events are encoded by *-un* verbs in type (4). Consider the pulling event and the overturning event as illustrated in (7.10) and in (7.11) respectively:

(7.10) *huluy* 'pull'

1. nyux=ku   h<m>uluy   sa   ruma'.
    ASP=1SG.NOM   <m>pull   LOC   bamboo
    'I am pulling bamboos.'

2. blaq hluy-un qu'   ruma'   qa';   ini'   mluw   pqaya'.
    good pull-un   NOM   bamboo DEM   NEG   m.follow   clip
    'It is easy to pull the bamboo because its branches do not twine around others.'

b'. *blaq   hluy-an qu'   ruma'   qa';   ini' mluw   pqaya'.
     good   pull-an NOM   bamboo DEM   NEG m.follow clip
    'It is easy to pull the bamboo because its branches do not twine around others.'

c. wal=mu   hluy-un qu'   ruma'   la'.
    ASP=1SG.GEN   pull-un   NOM   bamboo   FP
    'I have pulled bamboos.'

c'. hluy-un=mu   qu'   ruma'   kira'.
    pull-un=1SG.GEN   NOM   bamboo   later
    'I will pull bamboos later.'

d. wal=mu   s-huluy ruma'   qu'   snyuw   qa'.
    ASP=1SG.GEN   s-pull   bamboo NOM   rope   DEM
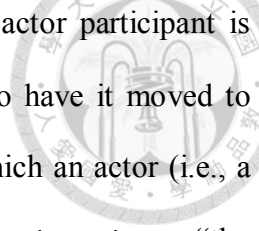   'I have pulled bamboos with the rope.'

249

e. wal=mu   s-huluy ruma' qu'   yaba'=mu.
   ASP=1SG.GEN s-pull   bamboo NOM   father=1SG.GEN
   'I have pulled bamboos for my father.'

(7.11) *pakux* 'overturn'
a. nyux=ku   makux   sa   qhuniq   tqinuw   qa'.
   ASP=1SG.NOM   m.overturn   LOC   tree   mushroom   DEM
   'I am overturning the mushroomwood.'

b. blaq   pkux-un   qu'   qhuniq   tqinuw   qa'.
   good   overturn-un   NOM   tree   mushroom   DEM
   'It is easy to overturn the mushroomwood.'

b'. *blaq   pkux-an   qu'   qhuniq   tqinuw   qa'.
    good   overturn-an   NOM   tree   mushroom   DEM
    'It is easy to overturn the mushroomwood.'

c. wal=mu   pkux-un   qu'   qhuniq   tqinuw   qa'.
   ASP=1SG.GEN   overturn-un   NOM   tree   mushroom   DEM
   'I have overturned the mushroomwood.'

c'. pkux-un=mu   qu'   qhuniq   tqinuw   qa'   kira'.
    overturn-un=1SG.GEN   NOM   tree   mushroom   DEM   later
    'I will overturn the mushroomwood later.'

d. wal=mu   s-pakux sa qhuniq   tqinuw   qa' qhuniq   qa'.
   ASP=1SG.GEN   s-overturn LOC tree   mushroom   DEM wood   DEM
   'I have overturned (the) mushroomwood with the wood.'

e. wal=mu   s-pakux   sa   qhuniq   tqinuw   qa'   qu'
   ASP=1SG.GEN   s-overturn LOC   tree   mushroom   DEM   NOM
   yaki'   qa'.
   grandmother   DEM
   'I have overturned (the) mushroomwood for the old woman (i.e., the
   grandmother).'

Examples in (7.10) express the relationship between an actor (i.e., a 1st person singular

participant) and an undergoer i.e., *ruma'* 'bamboo'), in which the actor participant is holding the undergoer firmly and exerting force upon it in order to have it moved to somewhere. Likewise, examples in (7.11) describe a situation in which an actor (i.e., a 1st person singular participant) turns an undergoer (i.e., *qhuniq tqinuw* "the mushroomwood") upside down or on its side.

In (7.10a) and (7.11a), it is the actor, marked with nominative, that is highlighted, and the intrinsic undergoer is marked with Loc2. In (7.10b), (7.10b'), (7.11b) and (7.11b'), it can be easily noticed that the undergoer has a tight relation to the *-un* form of verbs *huluy* 'pull' and *pakux* 'overturn', instead of to their *-an* form. In (7.10c) and (7.11c), the *-un* form is used to specify a realis pulling and overturning event respectively. In (7.10c') and (7.11c'), the *-un* form of the two verbs *huluy* 'pull' and *pakux* 'overturn' is also used to express an irrealis event in which the undergoer remains the subject. Either (7.10d)/(7.10e) or (7.11d)/(7.11e) show that a peripheral participant takes the role of subject in an *s-* clause structure.

We summarize the preceding discussion on (7.10) and (7.11) in terms of Table 7.8:

Table 7.8: The interaction of concepts, undergoers, case-making, and four construction types for *-un* verb type (4): [Undegoer as Figure in *Causative motion* schema]

	Concept	EIC construction & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Figure** →	Undergoer	*sa* → *-un* NP	*-un* (Irrealis)/ (Realis)	---
			-an	*-an*	
II	Figure'= Instrument →	(Other undergoer participant 1, but demanded in extra context)	--- → *s-*	---	*s-* →
III	Figure" = Benefactee	---	---	---	--- → *s-* →

As can be seen from Table 7.8, the morphosyntactic representation for verbs in question is entirely identical to the three *-un* verb types discussed earlier (i.e., the *Transformation*, the *Gathering*, and the *Taking* schema). That is, as shown in this table, the intrinsic undergoer is conceptualized as the Figure and is Loc2-marked in an EIC and is realized as the highlighted entity in terms of the *-un* form of verbs.

Table 7.9 is a simplified version of Table 7.8:

Table 7.9: A syntactico-semantic template for the relationship between verbs in *-un* verb type (4) and their (non-)intrinsic arguments

Non-actor clause type	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer
-un	●———————●	(Irrealis; realis)	*sa*	Yes (Figure)
-an	-	-		
s-	(●)———————●		---	No (Figure'; Figure")

In Table 7.9, the tight relation between the Figure undergoer and the *-un* verb type (4) is conspicuous.

(7.12) below summarizes the preceding discussions in this section.

(7.12) Conceptual and morphosyntactic representation for their participants in events encoded by verbs in the *–un* verb type (4)

In events encoded by *huluy* 'pull', *lqing* 'hide something', *piray* 'roll something' etc., the actor exerts his or her force upon an undergoer in order to have it continuously moved to some destination. Movement of this sort does not lead to any essential change of the undergoer. In light of this, the participants, force and the activity together construct a *Causative motion* schema. As for morphosyntactic representation, in an EIC clause structure, the undergoer is Loc2 *sa*-marked. When expressed in a realis transitive clause, the undergoer is highlighted in *-un* voice construction, a tight relationship between the undergoer and the *un-* form is then established. If the undergoer is to be highlighted in an irrealis event, the *-un* form remains to be the only voice form employed.

7.6 *-un* verb type (5): [Undergoer as Figure in *Self-moving* schema]

Events like waiting for someone, chasing, inviting etc. illustrate a situation in which

a participant or an entity has an ability to move by himself or herself toward or away from somewhere. This kind of self-motion is in contrast to the foregoing causative motion discussed above, since events of this sort does not involve an actor's physical force; instead, sometimes it may be just the actor's intention that triggers the movement in question, as in an inviting event. Based on this description, it can be easily noticed that there are two participants, an actor and a participant, intrinsic to the transitive events of this type.   In terms of Talmy's Figure-Ground framework, the self-moving entity is conceptualized as the Figure, or since it executes a self-referencing action, the entity can also be conceptualized as an amalgam of Figure and Ground, termed a self-referencing Figure. Furthermore, morphosyntactically, the -*un* form of a verb is used to highlight the undergoer participant/entity. In other words, verbs (e.g., *naga'* 'wait', *hbyaw* 'chase', *tepah* 'invite' and so on) encoding their arguments in this way are grouped into the –*un* verb type (5): **[Undergoer as Figure in *Self-moving* schema]**.

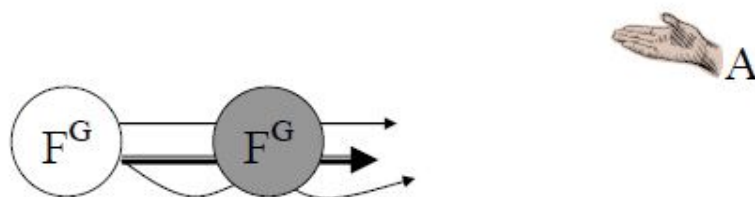Events under this type can be schematized as below:

Fig. 7.5: *Self-moving* schema

In Fig. 7.5, the designation of two circles is meant to suggest that the Figure entity has undergone self-movement. More precisely, we use a blank circle to represent the idea that the entity in question was in some location at some point in time, and a shaded circle to show that the Figure is in some other location when the activity ends. As for the hand icon, like all other cases in the present study, it signifies the Actor; however,

the icon is placed at some distance from the Figure to suggest that it is not necessary for the Figure entity to move toward the Actor; as mentioned, the entity may move away from the Actor, as in a chasing event. In this figure, the different lines are used to show the various ways the Figure entity moves; for instance, a straight line might mean that the Figure entity moves in the context when someone, usu. the Actor, invites him or her; likewise, a curved live might be used to show that it is in a chasing event.

A point worth noticing is that the *Self-moving* schema is the very opposite of the *Steadiness* schema discussed in Chapter 6. For the *Self-moving* schema, its intrinsic undergoer is realized as an object in motion, but the undergoer in the *Steadiness* schema is static and fixed to some locus. For example, in a looking-for event, an instance of *Self-moving* schema, its intrinsic undergoer is metaphorically realized as a self-moving object, in contrast to the undergoer in a discovering event (specified by a verb like *uluw* 'discover'), which is construed as an object in stasis.

Now let us proceed to the morphosyntactic representation for events subsumed under the *Self-moving* schema. Consider (7.13):

(7.13) *naga'* 'wait for'
  a.   nyux=ku   m-naga'   sa   hnyal=naha'   ras-un.
       ASP=1SG.NOM   m-wait.for   LOC   ASP=3PL.GEN   take-un
       'I am waiting for something they are bringing (to me).'

  b.   blaq   ng-on   qu'   basi'   qa'.
       good   wait.for-un   NOM   bus   DEM
       'It is easy to catch a bus on this route (because it comes by about every ten minutes).'

  b'.   *blaq   ng-an   qu'   basi'   qa'.
       good   wait.for-an   NOM   bus   DEM
       'It is easy to catch the bus on this route.'

c. wal=mu   ng-on   n-aras=naha'.
    ASP=1SG.GEN   wait.for-un   n-take=3PL.GEN
    'I waited for what they brought (to me).'

c'. ng-on=mu   qu'   ras-un=naha'   kira'.
    wait.for-un=1SG.GEN   NOM   take-un=3PL.GEN   later
    'I will wait for what they will bring (to me).'

d. ng-an   cikay   qaya'=nya'   qu'   ciwas.
    wait.for-an   a.bit   thing=3SG.GEN   NOM   PN
    'Please wait for Ciwas's thing.'

e. nyux=mu   s-naga'   qaya'=nya'   qu'   ciwas.
    ASP=1SG.GEN   s-wait.for   object=3SG.GEN   NOM   PN
    'I'm waiting for her object (here) for Ciwas.'

In (7.13a), two participants, an actor and an undergoer, are respectively a nominative argument and a Loc(2) argument required by the *m-* form of the verb, *naga'* 'wait for'. Comparing (7.13b) with (7.13b'), the undergoer, i.e., some bus, is the subject in a *blaq* construction in *-un* form, but not in *-an* form. According to the diagnostics proposed in Chapter 5, the *blaq* construction test in (7.13) means that there is a tight conceptual link between the undergoer and the verb's *-un* form. In (7.13c) and (7.13c'), the *-un* form is used to specify the undergoer as the subject in a realis and an irrealis transitive event respectively. In (7.13d), the *-an* form of *naga'* 'wait for' is left for a beneficiary imperative. In (7.13e), a beneficiary argument is the subject in a *s-* clause, although that argument is not required by the valency of the verb *naga'* 'wait for'.

(7.14) illustrates another event subsumed under the self-moving schema:

(7.14) *hbyaw* 'chase away'

a. Q: cyux=su   hmswa'?
        ASP=2SG.NOM   do.it.why
        'What are you doing?'

    A: nyux=ku   h<m>yaw   sa   ngta'.
        ASP=1SG.NOM   <m>chase   LOC   chicken
        'I am chasing (the) chicken.'

b. blaq   hbyag-un   qu'   ngta'   qa';   helaw   kyap-un.
    good   chase-un   NOM   chicken   DEM   quick   catch-un
    'It is easy to chase the chicken (because) it can be easily caught.'

b'. *blaq   hbyag-an   qu'   ngta'   qa'.   helaw   kyap-un.
    good   chase-an   NOM   chicken   DEM   quick   catch-un
    'It is easy to chase the chicken (because) it is easily caught.'

c. wal=nya'   hbyag-un   qu'   ngta'   qasa'.
    ASP=3SG.GEN   chase-un   NOM   chicken   that
    'He chased that chicken.'

c'. hbyag-un=nya'   qu'   ngta'   qasa'   kira'.
    chase-un=3SG.GEN   NOM   chicken   that   later
    'He will chase that chicken later.'

d. hbyag-an ngta'   qu'   yaki'   qa'.   ini'   thoyay   h<m>yaw.
    chase-an chicken   NOM grandmother   DEM   NEG able   <m>chase
    'Chase down chicken for the old woman (i.e., the grandmother); she failed to
    do (it).'

e. wal=nya'   s-hbyaw ngta'   qu'   yaki'   qa'.
    ASP=3SG.GEN   s-chase   chicken   NOM grandmother   DEM
    'He chased (the) chicken for the old woman (i.e., the grandmother)'

In (7.14a), there are a 1st Person singular actor, coded as a nominative argument, and an

undergoer, i.e., *ngta'* "chicken", marked with Loc(2). In (7.14b), the undergoger is

marked with nominative in a *blaq* construction with the *-un* form of the verb *hbyaw* 'to chase away' employed; on the contrary, as shown in (7.14b'), the *-an* form is not acceptable. A comparison between (7.14b) and (7.14b') evidences that the verb under discussion here belongs to the *-un* verb type. Furthermore, a realis expression with the undergoer as the highlight displayed in (7.14c) also supports the point just made. The *-un* form is also used in an irrealis expression, as shown in (7.14c'). As for its *-an* form, it is used in a benefactive imperative, i.e., the construction with a beneficiary participant as the highlighted entity; this is shown in (7.14d). In (7.14e), a beneficiary participant, i.e., *yaki' qa* "the grandmother" is encoded as the highlighted entity in the *s-* clause structure. But as we have stated again and again, a beneficiary participant plays no role at all in determining what verb type a verb may belong to in the language.

We summarize the preceding discussions for (7.13) and (7.14) in the following table:

Table 7.10: *-un* verb type (5): [Undergoer as Figure in *Self-moving* schema]

	Concept	EIC construction	*blaq* construction	Plain UV construction (reality status)
I	**Figure** ← Intrinsic undergoer → Loc(2) *sa* NP		*-un* → / *-an*	*-un* (Irrealis)/ (Realis) *-an*
II	Figure" = Benefactee	(Other undergoer participant)	--- ---	*s-*

As clearly seen from Table 7.10 the only intrinsic undergoer is conceptualized as Figure and coded as a Loc(2) *sa*(/*squ'*)-marked argument in an EIC and a nominative

argument in a plain UV construction. As for Figure", it is not intrinsic to a typical self-moving event, so that it cannot be considered as a factor responsible for determining which type a verb belongs to (e.g., the *-un*, the *-an*, or the *s-* type).
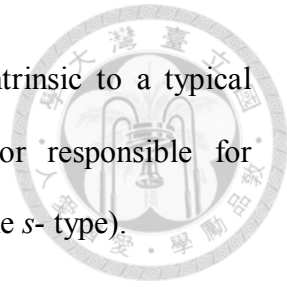
Table 7.11 is a simplified version of Table 7.10:

Table 7.11: A syntactico-semantic template for the relationship between verbs in *-un* verb type (5) and their (non-)intrinsic arguments

Non-actor clause type	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un	●——————● (Irrealis; realis)		*sa*	Yes (Figure)
-an	-	-		
s-	(●)——————●		---	No (Figure'; Ground')

(7.15) summarizes the conclusion of this section:

(7.15) Conceptual and morphosyntactic representation for their participants in events encoded by verbs in the *-un* verb type (5)

In events encoded by *naga'* 'wait', *hbyaw* 'chase', *tepah* 'invite' and so on, the actor does not exert his or her physical force upon the intrinsic undergoer of the events; instead, the undergoer moves spontaneously or sometimes is prompted to move by the intention of the actor. We henceforth regard events of this sort as instances of *Self-moving* schema.

As for the morphosyntactic representation, in an EIC clause structure, the intrinsic undergoer is Loc2 *sa*-marked. When expressed in dyadic transitive clauses, the undergoer is the subject of the *-un* form of a verb in the very type, and then a tight relationship between the undergoer and the *-un* clause is established. When the undergoer appears as the highlighted entity in an irrealis event, it remains for the verb its *-un* form employed.

With regard to the *s-* clause type, it is used to highlight a

benefactee participant. Since a beneficiary argument is prohibited from an EIC, its presence in a *s-* clause is automatically insured.

7.7 *-un* verb type (6): [Undergoer as Figure in *Cognition* schema]

Abstract activities like knowing, thinking, and dreaming are used to illustrate a situation in which content enters into someone's consciousness and is rooted there. Content is the undergoer participant intrinsic to these activities. From the conceptual perspective, content refers to an idea, a feeling, an image etc., i.e., as an object not further decomposable and whose outline cannot be defined. Characteristics like these imply that it is hard to set up content as a fixed, known reference point for locating the other conceptual object; based on this, it seems more appropriate to assign a Figure concept to content (cf. Talmy 2000:315 (9)). Moreover, content may be analogous to a stimulus with a dynamic appearance, so that once activated, it enters into the consciousness of the cognizer. Following this line of thinking, content can be metaphorically construed as a movable object, which means the Figure undergoer is a movable object. In short, the undergoer of this sort is a self-referencing Figure, while the cognizer can be construed as a receiver of content, namely a Ground entity.

In a transitive clause, the cognizer is encoded as a genitive argument, and content is marked with nominative. Besides, it is the *-un* form that is recruited to highlight content, i.e., the undergoer. As a result, we group verbs for the events, e.g., *baq* 'know', *lnglung* 'think of', *spi'* 'dream' etc. into the *-un* verb type (6): [Undergoer as Figure in *Cognition* schema]. The schema can be diagramed below:
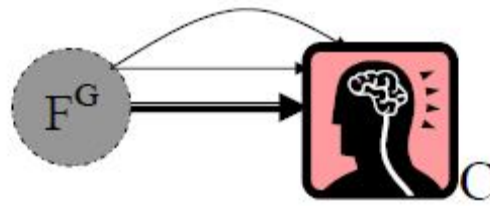
Fig. 7.6: *Cognition* schema

In Fig. 7.6, content is conceptualized as Figure, or a self-referencing Figure entity, so it is symbolized as a circle; the dashed line on the Figure is to show it is an abstract entity, symbolized as F^G. The cognizer is shown as an icon with a brain image and represented by C. Different lines between F^G and C stand for different cognitive activities. Arrows pointing toward the cognizer express the very important point that content moves toward the cognizer.

Let us proceed to the morphosyntactic representation of the verbs in *-un* verb type (6). Consider (7.16):

(7.16) *baq* 'know'

a. baq=saku'   sa   zyaw=naha'.
    know=1SG.NOM   LOC   thing=3PL.GEN
    'I know their matter.'

b. helaw   baq-un   qu'   zyaw=naha'.
    quick   know-un   NOM   thing=3PL.GEN
    'People knew about their matter quickly. (Lit., It is quickly to know about their matter.)'

b'. *helaw   baq-an   qu'   zyaw=naha'.
     quick   know-an   nOM   thing=3PL.GEN
     'People knew about their matter quickly. (Lit., It is quickly to know about their matter.)'

c. baq-un=nya'   qu'   zyaw=naha'.
   know-un=3SG.GEN   NOM   thing=3PL.GEN
   'He knew about their matter.'

c'. musa=nya'   baq-un   qu'   zyaw=naha'.
    ASP=3SG.GEN   know-un   NOM   thing=3PL.GEN
    'He will know about their matter.'

In (7.16a), the Loc(2)-marked argument *zyaw=naha'* 'their matter' is the intrinsic undergoer with respect to the knowing activity. Except for it, there is no other intrinsic undergoer there. The syntactic pattern in (7.16b) can be regarded as a more straightforward way to obtain the inherent relationship between the event in question and its intrinsic undergoer participant. In (7.16b), *zyaw=naha'* 'their matter' is highlighted in the construction with the *-un* form of *baq* 'know' employed, instead of the *-an* form, as in (7.16b'). But note that, due to semantics of the verb *baq* 'know', we recruit a temporal verb *helaw* 'soon; quickly', rather than the verb *blaq* 'good', to help identify its intrinsic undergoer. The *-un* form is also attested in a realis transitive UV clause, as in (7.16c), and in an irrealis transitive UV clause, as in (7.16'). A tight relation between the *-un* form of the cognition verb *baq* 'know' and its undergoer argument is thus observed.

The same idea applies to other cognition verbs. Consider *lnglung* 'think' in (7.17) and *spi'* 'dream' in (7.18):

(7.17) *lnglung* 'think'

a. nyux=ku   l<m>lung   sa   zyaw   qa'.
   ASP=1SG.NOM   <m>think   LOC   thing   DEM
   'I am thinking about the thing.'

b. blaq   llung-un qu'   zyaw   qa'.
    good   think-un NOM   thing   DEM
    'It is easy to solve this problem. (Lit., It is easy to think about the thing.)'

c. wal=mu   llung-un qu'   zyaw   qa'.
    ASP=1SG.GEN think-un NOM   thing   DEM
    'I have thought about the thing.'

(7.18) *spi'* "to dream"

a. hazi'   cyux   m-spi'   yaqih   na' spi'   qu'   yumin.
    probably ASP   m-dream bad   LIG dream   NOM   PN
    'Maybe Yumin is having a nightmare.'

b. blaq   spy-un   qu'   ngarux.
    good   dream-un   NOM   bear
    'It is good (for a mother-to-be) to dream of bears.'

c. wal=mu   spy-un   qutux   qu'   ngarux.
    ASP=1SG.GEN dream-un   one   NOM   bear
    'I have dreamt of a bear before.'

Likewise, in (7.17) and (7.18), by means of the examples in (b) and (c), a tight link between the *-un* form and the intrinsic undergoer is easily observed.

Table 7.12 summarizes the discussions on (7.16) to (7.18):

263

Table 7.12: *-un* verb type (6): [Undergoer as Figure in *Self-moving* schema]

Concept	EIC construction		*blaq* construction	Plain UV construction construction (reality status)
Figure ←	Intrinsic → undergoer	Loc(2) *sa* NP →	*-un* →	*-un* (Irrealis)/ (Realis)
			-an	*-an*

In Table 7.12, it can be observed that the intrinsic undergoer, conceptualized as Figure, is encoded as a Loc(2) argument in an EIC clause and is highlighted in both realis and irrealis UV clauses. Other UV alternative forms like *-an* and *s-* are absent from the morphosyntactic representation for the verbs in question. One interpretation for this absence may be like this: the cognizer is not necessarily an active participant in the events; for example, under normal circumstances, it is impossible for one to dream of something to in order to benefit other(s); namely, dreams come and go spontaneously. In short, the absence of *-an* and *s-* clauses suggests that the cognizer can be construed as a receiver.

Table 7.13 is a simplified version of Table 7.12:

Table 7.13: A syntactico-semantic template for the relationship between verbs in *-un* verb type (6) and their (non-)intrinsic arguments

Non-actor clause type	*blaq* construction	Plain UV construction (reality status)	Case marking in EIC	As intrinsic undergoer (Concept)
-un	●————● (Irrealis; realis)		*sa*	Yes (Figure)
-an	-	-		

In terms of Table 7.13, a tight link between verbs'-*un* form and the intrinsic undergoer can be easily noticed.

Let us conclude our discussion on the -*un* type (6): [Undergoer as Figure in *Cognition* schema] in terms of (17):

(17) Conceptual and morphosyntactic representation for their participants in events encoded by verbs in the –*un* verb type (6)

In events or abstract activities encoded by *baq* 'know', *lnglung* 'think of', *spi'* 'dream' and so on, a cognizer and content are intrinsic participants there. Content is regarded as an entity moving into the consciousness of the cognizer, who is then realized as the receiver. Based on the realization of the undergoer, we identify a new verb type, i.e., the -*un* verb type (6): [Undergoer as Figure in *Cognition* schema].

As for the morphosyntactic representation, in an EIC clause structure, the undergoer is Loc(2) *sa*-marked. When expressed in dyadic transitive clauses, the undergoer is highlighted in terms of verbs' -*un* form, a tight relationship between the undergoer and the -*un* clause is established in a neutral context. If the undergoer is highlighted in a non-neutral context, such as in an irrealis event, it the -*un* form is still the construction employed.

Other than the -*un* form of verbs that belong to type (6), there is no other voice forms that can be used to specify the undergoer as a subject.

## 7.8 -*un* verb type (7): [Underger as Figure in *Stimulus* schema]

Emotional events encoded by verbs like *soya'* 'like', *nkux* 'startle', *pqas* 'happy' etc. describe a situation where an entity or a substance possesses one attribute, and the attribute generates in another participant a set of responses, which may include physiological, behavioral, and neural mechanisms. Take for example the emotional state of satiety as an example. When people taste honey, they usually take in only a little bit
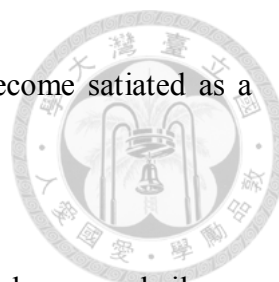
at a time; however, if they take in too much, they are likely to become satiated as a result. The following excerpt is an example:

(7.19) h<m>inas   yal   qu'   kin-sbing   na' boq   hzil;
       <m>exceed   very   NOM   KIN-sweet   GEN juice   bee
       hngyas-un=mu   maniq.
       satiated-un=1SG.GEN   m.eat
       'Honey is much too sweet. I (easily) feel satiated over it.'

The cause-effect relationship can be realized in terms of the causal chain below:

(7.20)

(D) STATE DIRECTED TO
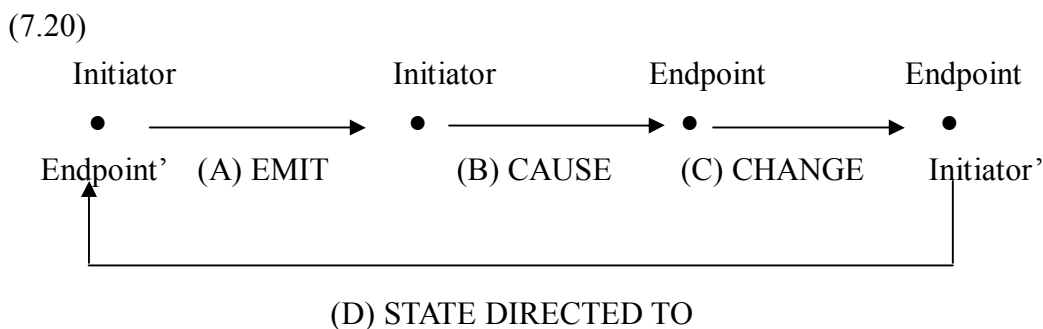
The causal chain consists of four subevents (A), (B), (C), and (D). (A) describes an event in which some attribute is emitted from an object when one acts on it, where the object is an initiator. (B) means that the emission causes some unspecified effect on the experiencer. In event (C), some specified change occurs in the experiencer, as for example, when he starts to think he has had too much of it and becomes disaffected. In (D) the experiencer explicitly shows his emotive attitude toward honey, which at this stage becomes another endpoint (i.e., the Endpoint' in (7.20)).

The scenario can be represented in terms of the following event structure template:

266

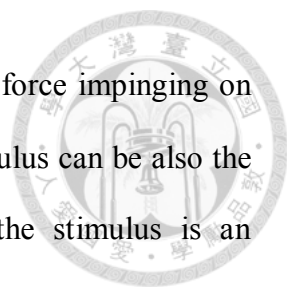(7.21) [[Stimulus STIMULUS<manner>]] CAUSE [[Experiencer
BECOME<react in>]

Based on (7.21), it can be firstly observed that there are two intrinsic arguments of verbs for the events under the template; moreover, information about manner and state are inferred from the base of the semantics of verbs, so information like these are not specified in any argument slot.

Some instances of verbs under the *-un* type (7) are provided below:

Table 7.14: Some instances of verbs under the *-un* type (7) and the paraphrase for their respective event

Derived verb	Gloss of Squliq verb	Base	Entailed Meaning of the base	*-un* verb	Paraphrase for the event specified by the *–un* verb
hngyas	bored; loathe	*hinas*	Exceed; abundant	*hngyas-un*	Experiencer is bored of the object which releases the image of abundance
r'us	disgust	*r'us*	dirty	*r'us-un*	Experiencer feels disgusted with the object which releases dirty image
soya'	adore	*oya'*	Desire to obtain	*szy-on*	Experiencer shows his or her to the object which releases the image of desire

Take the verb *hngyas-un* 'satiated; bored' as an example. Its base form *hinas* means 'too much'; that is, when there is an overabundance of something, people may come to dislike it. In other words, overabundance is a stimulus that triggers in the experiencer the feeling of satiety. Likewise, *r'us* means dirty; that is, the dirty image of an object usually causes people to feel disgusted.

Furthermore, the stimulus can be metaphorically realized as a force impinging on the experiencer. In this sense, it can be easily observed that the stimulus can be also the source of force. Based on Talmy's Figure-Ground dichotomy, the stimulus is an amalgam of Figure and Ground, and often interpretable as Figure.

In a transitive -*un* clause, the experiencer is coded as a genitive argument, and the stimulus, as a nominative argument, i.e., the undergoer. We thus define the schema for the undergoer activation as the *Stimulus* schema, and categorize verbs used to encode the events in question into the -*un* verb type (7): [Undergoer as Figure in *Stimulus* schema]. Events can be diagrammed below:
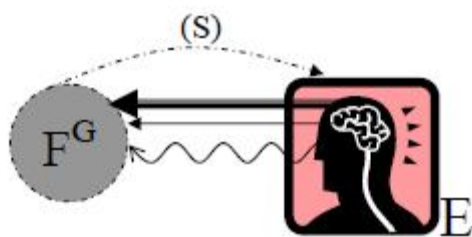

Fig. 7.7: *Stimulus* schema

In Fig. 7.7, F^G stands for the stimulus that causes another participant to go into a specific mental state. This second participant is Experiencer (E); depending on the type of stimulus, the experiencer may then express a variety of feelings toward F^G. Different lines stand for different types of stimulus.

Now let us move on to look at how emotion events subsumed under the *stimulus* schema are realized morphosyntactically. Consider the instance of liking, as illustrated in (7.22):

(7.22) *soya'* 'adore'

a. s\<m\>oya'=saku'   muya'   sa   phpa'.
   \<m\>adore=1SG.NOM   m.plant   LOC flower
   'I enjoy planting flowers very much.'

b. zinga'   szy-on   na'   squliq   qu'   phpa'   qasa'.
   quick   adore-un GEN man   NOM   flower   that
   'That (type) of flower is easily adored by people.'

c. wal=nya'   szy-on   qu'   ciwas.
   ASP=3SG.GEN like-un NOM   PN
   'He adored Ciwas (before).'

d. musa'=nya'   szy-on   qu'   ciwas.
   ASP=3SG.GEN like-un NOM   PN
   'He may adore Ciwas.'

e. s-soya'=nya'   ciwas   qu'   pila'=nya'.
   s-like=3SG.GEN PN   NOM   money=3SG.GEN
   'He adores Ciwas for her money.'

In (7.22a), the *\<m\>* clause structure is an EIC, in which =*ku'* 'first person nominative pronoun' refers to the experiencer, and *phpa'* 'flower' is the intrinsic undergoer of the verb *s\<m\>oya'* 'adore' and then is Loc(2) *sa*-marked. In (7.22b), the *-un* form of the emotion verb *soya'* 'to adore' is used for the speaker to evaluate the stimulus in terms of a *zinga'* construction, which has the same function as the *blaq* construction. In (7.22c), it is also the *-un* form of *soya'* 'to adore' used for highlighting its subject role of the stimulus in a realis UV event. In (7.22d), the *-un* form is used in an irrealis UV event. (7.22c) is used to highlight a beneficiary participant. The participant is encoded as a nominative argument in a *s-* clause.

A summary of the discussions in (7.22) is given in Table 7.15:

Table 7.15: The interaction of concepts, undergoers, case-making, and four construction types for *-un* verb type (7): [Undergoer as Figure in *Stimulus* schema]

	Concept	EIC & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Figure (i.e., an amalgam of Figure and Ground)** ⟶	Intrinsic undergoer, Loc(2) *sa/ squ'* ⟶	*-un* ⟶	*-un* (Realis); *-un* (Irrealis)	---
Ⅱ	Figure' = Benefactee ⟶	---	---	---	*s*

In Table 7.15, (I) is used to indicate how the intrinsic undergoer is realized at the level of morphosyntax. It is a Figure concept and is Loc2 *sa*(/*squ'*) -marked in an EIC and is the subject in a *blaq* construction and a plain UV realis construction, both with the *-un* form recruited. (Ⅱ) is used to express a non-intrinsic undergoer, i.e., beneficiary argument, as the subject in an applicative *s-* construction.

(7.23) is a summary of the preceding discussion:

(7.23) Conceptual and morphosyntactic representation for their participants in events encoded by verbs in the *-un* verb type (7)

　　In events encoded by *soya'* 'adore', *qas'* 'happy', r'us 'disgust', a stimulus and an experiencer are the two intrisinc participants. Stimulus is regarded as a property released from one participant and further has an impact on another, i.e., the experiencer; consequently, the experiencer reacts to the entity who releases the characteristic by assuming some emotive attitude. Based on the realization of their intrinsic undergoer, verbs of this type belong to the *-un* verb type (7): [Undergoer as Figure in *Stimulus* schema].

As for the morphosyntactic representation, in an EIC clause structure, the intrinsic undergoer is Loc(2) *sa*-marked. When expressed in dyadic transitive clauses, the Figure undergoer is the subject of the *-un* clause, a tight relationship between the undergoer and the *-un* clause is thus established. When the Figure undergoer appears as the subject in an irrealis event, the *-un* form is also used.

The *s-* form is used to highlight a beneficiary participant, not the intrinsic undergoer of verbs under the type.

7.9 *-un* verb type (8): [Undergoer as Figure in *Triggering* schema]

Events encoded by verbs like *s'ang* 'scold', *thazi'* 'tease', *zimu'* 'console' etc. describe a situation where an actor acts on an undergoer, and as a result the undergoer reacts to it in some way which may be culturally inferable. Events such as these can be paraphrased as:

(7.24) Actor acts on Undergoer by scolding, teasing, consoling etc., and that may causes the undergoer to react by taking an action or entering into a state.

The paraphrase can be further represented as the following event structure template:

(7.25) [[Actr. ACT<manner>]] CAUSE [[Undr. BECOME<*react*>]

In (7.25), it can be easily observed that there are two intrinsic participants, an actor and an undergoer. However, there are two subevents in the template; one subevent refers to that specified by the item 'ACT<manner>', i.e., a scolding action, a teasing action, or a consoling action, in which the two intrinsic participants are involved; the other subevent is represented by the item 'BECOME<*react*>' . The second event is unspecified in the clause in which a verb like *s'ang* 'scold', *thazi'* 'tease', *zimu'* 'console' etc. is the

271

predicate, but its existence is culturally inferable. Consider (7.26):

(7.26)

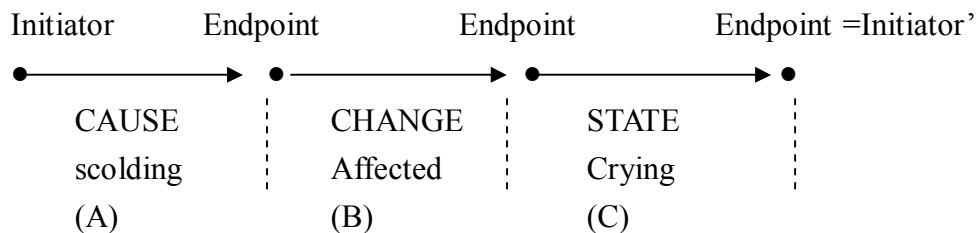a. swa'   cyux   m-ngilis qu'   ciwas?
   why   ASP   m-cry   NOM   PN
   'Why is Ciwas crying?'

b. s<n>'ang   ni' yaya'=nya';   yasa   qu'   m-ngilis la'.
   <n>scold   GEN mother=3SG.GEN   that.way NOM   m-cry   FP
   'Her mother scolded (her); therefore, (she) cries.'

(7.26a) and (7.26b) constitute a question-answer pair. In (7.26a), the speaker asks why Ciwas is crying; in (7.26b), the answer to the question in (7.26a) is provided, namely, it is a scolding action that causes her to do so. The following causal chain can aid us in understanding (7.26):

(7.27)

Initiator   Endpoint   Endpoint   Endpoint =Initiator'

CAUSE   CHANGE   STATE
scolding   Affected   Crying
(A)   (B)   (C)

The causal chain representation in (7.27) consists of three parts, A, B, and C. A refers to the scolding subevent, analogous to the part 'ACT<manner>' in (7.2) and it triggers the occurrence of (B) and (C). B, though not explicitly expressed in (7.4), stands for Ciwas's mental activity, which is a precondition for Ciwas's crying action in (C). In (C), Ciwas is profiled. Likewise, the activity in (C) is not overtly expressed in 'ACT<manner>' in (7.25); however, from the perspective of frame analysis (Fillmore, 1976; Goldberg, 1995; Iwata, 2006), something like elements in (B) and (C) may be

272

thought of as potential sequential subevents for a complete scolding frame in the language. As stated in Chapter 4, meanings are characterized relative to frames, where many elements including abstract but powerful folk models (e.g., (C) in a scolding frame in the language) and the transmission of force (analogue to force driving state change in (7.4)) are invoked. In short, a frame-theoretic approach provides an excellent mechanism for underlying the syntax and semantics of a lexical item. This approach has been demonstrated in other parts of the thesis.

To return to the profiled participant in (7.26) and (7.27), since Ciwas is the endpoint of force transmission in a scolding event, she can be conceptualized as a dynamic entity in space. In terms of Talmy's framework, the profiled is a Figure concept, and a link between such a Figure concept and the *-un* form of verbs for events under investigation is then established. Events like this can be schematized as a *Triggering* schema in which Figure is the undergoer. Thus a new verb type, the *-un* very type (8): [Undergoer as Figure in *Triggering* schema] is identified.

The relationship between participants under the *trigger* schema can be diagrammed as follows:
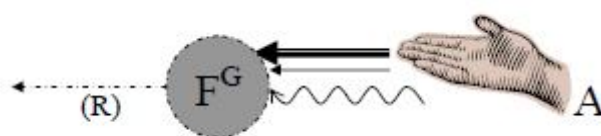

Fig. 7.8: *Triggering* schema

In Fig. 7.8, A stands for actor. F^G refers to self-referencing Figure pariticpant, but also the affected participant; as a result, it is an amalgam of Figure and Ground; R refers to the reaction the Figure participant produces in a subsequent event; different lines between the Actor and the Figure participant represent different ways the former adopts to affect the latter; the dashline on the leftside of the Figure participant signifies a

hidden reaction the participant may take.

Let us proceed to look at how the *Triggering* schema is realized morphosyntactically. Consider (7.28):

(7.28) *gnaw* 'kid'

a. nyux=ku   m-gnaw   sa   ciwas.
    ASP=1SG.NOM   m-kid   LOC   PN
    'I am kidding Ciwas.'

b. blaq   gno'-un   qu'   ciwas.
    good   kid-un   NOM   PN
    'It is easy to kid Ciwas.'

b'. *blaq   gno'-an   qu'   ciwas.
    good   kid-an   NOM   PN
    'It is easy to kid Ciwas.'

c. wal=mu   gno'-un   qu'   ciwas.
    ASP=1SG.GEN   kid-un   NOM   PN
    'I kidded Ciwas.'

c'. gno'-un=su   na' yumin;   nahay   pgey.
    kid-un=2SG.NOM   GEN PN   quick   leave
    'Yumin will kid you. Leave (here) now!'

d. gng-an=saku'   cikay   qu'   yumin;   teta'   ini' qhut
    kid-an=1SG.NOM   a.bit   NOM   PN   and.then   NEG   tight
    in-lung-an.
    PST-think-LOCNMZ
    'Kid Yumin! He won't be tensed up.'

e. s-gnaw=saku'   na' yumin   maha   teta'=saku'   m-qas.
    s-kid=1SG.NOM   GEN PN   QUOT   and.then=1SG.NOM   m-happy
    'Yumin kidded me to make me happy.'

274

(7.28a) is an EIC, in which the actor is marked with a nominative case and the undergoer *Ciwas*, since as an argument subcategorized by the semantics of the verb *gnaw* 'kid' is Loc(2) *sa*-marked. In (7.28b), the intrinsic undergoer is nominative-marked in the *blaq* V construction where the *-un* form of *gnaw* 'to kid' is used. As can be seen from (7.28b'), the verb's *-an* form fails the *blaq* construction test. In (7.28c), the intrinsic undergoer is the subject of the verb *gno'-un*, which is used to encode a realis UV event. Based on (7.28b), (7.28b') and (7.28c), it can be observed that a tight relation between its intrinsic undergoer and the *-un* form of the verbal predicate for a realis kidding event is established. In (7.28c'), the verb's *-un* form is also used for an irrealis event. However, as shown in (7.28d), its *-an* form is restricted to imperatives in which a beneficiary participant is selected as the subject. (7.28e) is an applicative construction in which a beneficiary participant is the subject and the verb is prefixed with an applicative prefix *s-*.

In (7.29), another instance of the *Triggering* schema is provided:

(7.29) *s'ang* 'get cross with; scold'
a. nyux=ku   s<m>'ang   sa   laqi'=mu.
    ASP=1SG.NOM <m>scold   LOC child=1SG.GEN
    'I'm scolding my child.'

b. blaq   s'ang-un qu'   laqi'   qa';   ini' syuk.
    good   scold-un NOM   child   DEM   NEG answer
    'It is easy to scold the child, (since) s/he does not talk back. (Lit., To scold the child is not a trouble matter, because he doesn't resort upon people.)'

b'. *blaq   s'ang-an qu'   laqi'   qa';   ini' syuk.
    good   scold-an NOM   child   DEM   NEG answer
    'To scold the child is easy, because s/he doesn't talk back.'

c. wal=nya'   s'ang-un qu'   laqi'=nya';   nanu'   yasa   qu',
   ASP=3SG.GEN scold-un NOM   child=3SG.GEN what   that.way NOM
   cyux   m-ngilis   la'.
   ASP   m-cry   FP
   'He scolded his child; therefore, (he) is crying.'

c'. nyux   mhngan la', m-zyuy na qu'   yumin; s'ang-un na'
    ASP   m-night FP m-play still NOM   PN   scold-un GEN
    yaba'=nya'   kira'   la'.
    father=3SG.GEN   later   FP
    'Night has come, but Yumin keeps playing outside; his father will scold him
    later.'

d. s'ang-an cikay   sa laqi'=nya'   qu'   ciwas.
   scold-an a.bit   LOC child=3SG.GEN   NOM   PN
   'Scold her child for Ciwas!'

e. s-s'ang=nya'   kun   qu'   ciwas.
   s-scold=3SG.GEN   1SG.NEU NOM   PN
   'He scolded me for Ciwas.'

In (7.29a), it can be seen that two intrinsic participants in a teasing event are an actor in nominative case and an undergoer in Loc2 case. In (7.29b), the intrinsic undergoer in a teasing event is the evaluated target and is nominative-marked; meanwhile, in the same sentence, it is the *-un* form of *s'ang'* 'get cross with; scold' recruited for the *blaq* construction. On the contrary, as shown in (7.29b'), its *-an* form is prohibited from the construction. A comparison between (7.29b) and (7.29b') shows that there is a tight relation between the intrinsic undergoer and the *-un* form in the event. Furthermore, in (7.29c), it is a realis event, which is also encoded by the verb's *-un* form. This again explains the fact that *s'ang' thazi'* belongs to the *-un* verb type. In (7.29c'), the *-un* form is also employed for an irrealis event. But, as shown in (7.29d), its *-an* form is used in a beneficiary imperative where a beneficiary participant is encoded as the subject. (7.29e)

276

is also an applicative construction and the beneficiary argument is the subject of the *s-*

form of *s'ang'* 'get cross with; scold'.

Table 7.16 summaries the preceding discussions:

Table 7.16: The interaction of concepts, undergoers, case-making, and four construction types for *-un* verb type (8): [Undergoer as Figure in *Triggering* schema]

	Concept	EIC & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Figure (i.e., an amalgam of Figure and Ground)** ⟶	Intrinsic undergoer	Loc(2) *sa/squ'* ⟶	*-un* ⟶ *-un* (Realis); *-un* (Irrealis)	---
Ⅱ	Figure' = Benefactee	---	---	---	--- ⟶ *s*

In Table 7.16, (I) indicates that the Figure concept is confirmed as the intrinsic undergoer, since it is Loc2 *sa/squ'*-marked in an EIC; furthermore, in the *blaq* construction and plain UV realis construction, the Figure undergoer is the subject of the *-un* form of a verb, and so a tight link between the Figure undergoer and the *-un* verb type is established. At the rightmost of (I), it can be observed that the intrinsic undergoer is not attested in an applicative construction.

(Ⅱ) shows that the beneficiary argument only occurs in an applicative construction.

(7.30) is a summary of the preceding discussion on the *-un* verb type (8):

(7.30) Conceptual and morphosyntactic representation for events encoded by verbs in the *-un* verb type (8)

In events or activities encoded by *gno* 'joke', *hmut* 'at will', *thazi'* 'tease' etc., an actor and an undergoer are two intrinsic participants of the verbs. The undergoer in these events may suffer from a mental anguish as a result of the action exerted by the actor and he then may react to the action in some way subsequently. The undergoer can be metaphorically realized as a dynamic entity, and in terms of Talmy's framework, the undergoer is Figure. Events of this type then are instances of *Triggering* schema.

At the level of morphosyntax, in an EIC, the intrinsic undergoer is Loc(2) *sa/squ'*-marked. When the event is expressed in a dyadic transitive clause, the undergoer is highlighted in the *-un* voice construction, and there is a tight relationship between the undergoer and the *-un* clause in a realis event. Based on our methodology, the class of verbs uner investigation is determined. *Gno* 'joke', *hmut* 'at will', *thazi'* 'tease' etc. are verbs that belong in the *-un* class. If the undergoer is to be highlighted in an irrealis event, the *-un* form remains to be the only voice form employed.

The *-un* form aside, the *s-* form is left for specifying a beneficiary argument, which is not an intrinsic argument of the verbs that fall under the Triggering schema.

7.10 Concluding remarks on the eight verb types in the *-un* class

In this chapter, I have identified eight *-un* verb types and examined their morphosyntax in some detail. Their share the commonality that their intrinsic undergoer has a tight relation to the *-un* form of verbs under their respective type. On the contrary, they are each different in the spatio-conceptual deployment between participants. In addition, there are other differences among the eight verb types, as shown below in Table 7.17.

Table 7.17: A comparison for eight *-un* verb types in Squliq Atayal

-un verb type	Verb example	Change type for undergoer	Undergoer's characteristic(s)	Attested in an applicative construction
-un verb type (1): [Undergoer as Figure in *Transformation* schema]	*pluk* 'burst out'	Form	Concrete object; totally affected	Yes
-un verb Type (2): [Undergoer as Figure in *Taking* schema]	*'agal* 'take'	Position	Concrete/abstract (e.g., zyaw 'job; thing'); totally affected	Yes
-un verb type (3): [Undergoer as Figure in *Gathering* schema]	*imaw* 'mix up'	Form	Concrete/abstract (e.g., *ke'* 'word')	Yes
-un verb Type (4): [Undergoer as Figure in *Causative motion* schema]	*pakux* 'turn over'	Position	Concrete; totally affected	Yes
-un verb type (5): [Undergoer as Figure in *Self-moving* schema]	*naga'* 'wait'	Position	Concrete; ability to move	Yes
-un verb type (6): [Undergoer as Figure in *Cognition* schema]	*baq* 'know'	Position	Abstract; settled in the mind of the cognizer	No
-un verb type (7): [Underger as Figure in *Stimulus* schema]	*nkux* 'startle'	Position	Abstract; as force driving the actor into a corresponding state	Yes
-un verb type (8): [Undergoer as	*gno* 'joke'	Position	Abstract; the undegoer driven	Yes

Figure in *Triggering* schema]			to react in a subsequent event
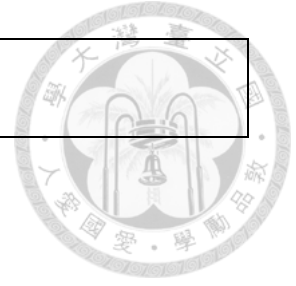
CHAPTER 8

THE *s-* CLASS

8.1 Introduction

This chapter deals with verbs that fall under the *s-* class. Verbs in this class employ their *s-* form to specify their intrinsic undergoer as the clausal subject and the undergoer is conceptualized as Figure. There is thus a tight link between the Figure undergoer and the *s-* form of the verbs, and this is why a separate *s-* class of verbs can be identified. Based on the various schemas that their participants construct, verbs falling under the class can be further divided into three types: the *s-* verb type (1): [Undergoer as Figure in *Pushing* schema], the *s-* verb type (2): [Undergoer as Figure in *Generation* schema], and the *s-* verb type (3): [Undergoer as Figure in *Cause* schema]. I will take them up in sequence in the following sections.

8.2 *s-* verb type (1): [Undergoer as Figure in *Pushing* schema]

Events like pushing something forward, carrying something to have it moved somewhere, renting something to someone, etc. are about a situation in which an actor exerts his or her force on an object in order to move it to somewhere. Based on this description, events such as these can be paraphrased as:

(8.1) Actor acts on Undergoer by pushing, carrying, renting etc., that causes it to move to somewhere.

From the perspective of valency, constructions used to encode events of this sort are three-valent ones, i.e., an actor, an undergoer (i.e., a 'moved' object), and a destination or a receiver. Consider the lexical semantic template for these events:

281

(8.2) [[Actr. ACT<manner>]] CAUSE [[Undr. BECOME *moved to somewhere*]
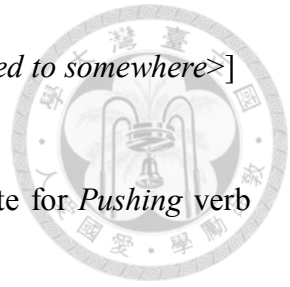
In this study, I call the template in (8.2) the event structure template for *Pushing* verb type.

Based on Rappaport Hovav and Levin (1998), in any event structure template, the ontological type of the associated base is indicated in angle brackets. For example, for the verb *ruruw* 'push', its ontological types are manner, i.e., *by pushing*, and result, i.e., moved to somewhere; thus, since destination or receiver is a semantic component entailed by the meaning of the verbal base, it is treated as an adjunct, and often left unspecified in a clause, unless required by discourse, in which case it then shows up as subject via applicativization. As a result, only the actor and the undergoer are core participants, and each is highlighted in their respective clause (i.e., *((-)m-)* clause and *s-* clause).

More examples of verbs in Squliq Atayal with the same structure template as above are given below.

Table 8.1: Examples for the event structure template for *Pushing* verb type

Squliq Verb	Gloss	Adjunct argument(s)
alax	leave something behind	1. result: destination (away from actor's hand)
panga'	carry on one's back and move	1. manner: the back of actor as instrument 2. result: destination
tbaziy	market something	1. result: destination (i.e., buyer)
piyok	rent out something	1. result: destination (i.e., renter)

Following the model adopted in the present study, i.e., determining a verb's type

with the aid of two factors, the conceptual and the morphosyntactic representation of the undergoer, verbs are categorized as being of **the *s*- verb type (1): [Undergoer as Figure in *Pushing* schema]**. For the conceptual representation of the events in question, since undergoer is an object transferred, namely, as a movable object, it is conceptualized as the Figure, and destination of the transferred object is conceptualized as the Ground. Taking the spatial organization for all participants and force exertion into account, the *s*- verb type (1) can be diagrammed below:
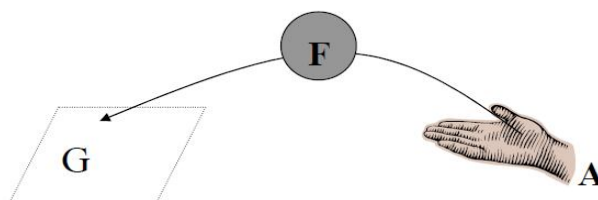
Fig. 8.1: *Pushing* schema for *s*- verb type

In Fig. 8.1, A, F, and G refer to Actor, Figure (i.e., the undergoer) and Ground (i.e., the destination) respectively. Shading the Figure conveys the idea that the entity is more salient and is highlighted in a "typical" transitive event and is also a component crucial for verb classification. Besides, as can be seen from Fig. 8.1, we use an arrow to represent the direction the Figure is moving in.

Events encoded by verbs like *piyok* 'rent' and *tbaziy* 'sell' can be schematized as Fig. 8.1. Note that, since the Figure's movement toward the Ground is sometimes accomplished via the accompaniment by the Actor, the diagram in Fig. 8.1 then has a variant like Fig. 8.2 below, in which the Figure moves along with the Actor.
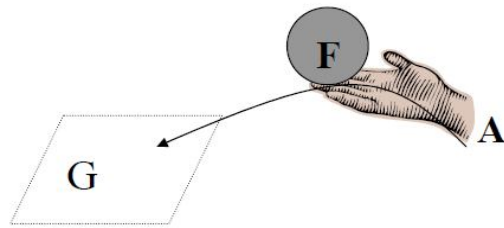
Fig. 8.2: A variant of *Pushing* schema for *s*- verb type

Verbs like *panga'* 'carry on one's back and move' and *satu'* 'send' are examples of Fig. 8.2. *Ruruw* 'push forward' is ambiguous as to the actor's relation with the Figure. The Actor can stay in its original position or move along with the Figure; as a result, the encoded event can be represented as either Fig. 8.1 or Fig. 8.2.

An event under the *Pushing* schema depicts a scene where an actor moves an object forward in a transitive event and the object that is pushed is highlighted, rather than other entities in the event, for example, the destination where the object pushed is finally located.

We now turn to morphosyntactic representation of the events interpreted in terms of the *Pushing* schema. Consider *tbaziy* 'sell' in (8.3):

(8.3) *tbaziy* 'sell'
a. nyux=ku   tbaziy   sa turuy=mu   sa   yumin.
    ASP=1SG.NOM sell   LOC car=1SG.GEN   LOC PN
    'I am selling my car to Yumin.'

b. blaq   s-tbaziy   qu'   turuy=nya'.
    good   s-sell   NOM   car=3SG.GEN
    'His cars were selling well.'

b'. *blaq   tbir-an   sa   turuy=nya'   qu'   kun.
    good   sell-an   loc   car=3SG.GEN   NOM   1SG.NEU
    '???I am a good receiver to get his car in a selling event.'

284

c. wal=nya'   s-tbaziy sa kun   qu'   turuy=nya'.
    ASP=3SG.GEN s-sell   loc 1SG.NEU NOM   car=3SG.GEN
    'He sold me his car.'

c'. t-tbaziy=nya'   sa kun   qu'   turuy=nya'.
    CA-sell=3SG.GEN   LOC 1SG.NEU NOM   car=3SG.GEN
    'He will sell me his car.'

d. tbir-an tutuy   qu'   syobay   qasa'.
    sell-an car   NOM   store   that
    'That store is (a) place for car-selling.'

d'. *tbir-an na' yumin sa   qutux turuy qu'   kun.
    sell-an   GEN PN   LOC   one   car   NOM   1SG.NEU
    '??? Yumin sold me a car.'

e. wal=mu   s-tbaziy turuy   qu'   yumin.
    ASP=1SG.GEN s-sell   car   NOM   PN
    'I sold (his) car(s) for Yumin.'

In (8.3a), there are three arguments for an ongoing sale event. They are the first person nominative bound pronoun =*ku*, a Loc(2)-marked NP *turuy=mu* 'my car', and a Loc(1)-marked adjunct *yumin*. Form the perspective of thematic role, the three arguments are agent, theme, and recipient, which are Actor, Figure, and Ground in Talmy's framework respectively. Besides, since Figure is Loc(2)-marked and is subcategorized for by the verb *tbaziy* 'sell', it is interpreted as an intrinsic undergoer. Again, the undergoer is the evaluated target in the *blaq* construction, as shown in (8.3b) where it receives a nominative case; this means the locative case used to introduce the Figure undergoer must be Loc(2). On the contrary, though the Ground undergoer (e.g., *kun* '1st singular neutral pronoun') in (8.3a) is also locative-marked, the *blaq* test in (8.3b') shows that the Ground undergoer cannot be considered as another intrinsic undergoer argument of the base *tbaziy* 'sell'; instead, as illustrated in (8.3d) and (8.3d'),
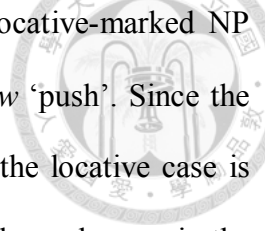
the –*an* form of *tbaziy* 'sell' is used as a nominalized form to refer to a shop. In short, as demonstrated by the event decompositional analysis, as in (8.1) and (8.2), the verb's Ground undergoer argument is an entailed component of the meaning of verbal base and takes an adjunct role in a clause. Since it can be observed that the language leaves no core argument slot for the Ground undergoer argument via (8.3b'), (8.3d), and (8.3d'), its adjunct role is verified.

Turning to the intrinsic undergoer, we also observe, via the *blaq* test, a tight relation between the Figure undergoer and the *s-* form of *tbaziy* 'sell'. The *s-* form is used to encode a realis sale event, as seen in (8.3c), where the undergoer is highlighted. The Undergoer is also highlighted in an irrealis sale event, as shown in (8.3c'). Note, however, in (8.3c'), the predicate verb is a *Ca*-reduplicated form of *tbaziy* 'sell'. The *s-* form can also be used as an applicative predicate which takes a beneficiary argument as its subject, as shown in (8.3e).

The pushing event is another instantiation of the *Pushing* schema. Consider (8.4):

(8.4) *ruruw* 'push'
a. nyux=ku   m-ruruw   sa   btunux   qa'.
    ASP=1SG.NOM m-push   LOC rock   DEM
    'I am pushing the rock. '

b. blaq   s-ruruw   qu' btunux   qa';   ini'   usu'.
    good   S-push   NOM rock   DEM   NEG   heavy
    'The rock was easily pushed (aside), (because it was) not heavy.'

c. wal=mu   s-ruruw   qu'   btunux   qa'.
    ASP=1SG.GEN s-push   NOM   rock   DEM
    'I have pushed the rock (before).'

d. r-ruruw=mu   qu'   btunux   qa'   na' kira'.
    CA-push=1SG.GEN   NOM   rock   DEM   still later
    'I will push the rock later.'

286

In (8.4a), a first person singular nominative pronoun =*ku* and a locative-marked NP *btunux qa* 'the rock' are the two arguments of the predicate *m-ruruw* 'push'. Since the locative-marked NP in (84.a) is intrinsic to the base *ruruw* 'push', the locative case is Loc2. The locative-marked argument in an EIC like (8.4a), namely the undergoer in the *Pushing* event, is highlighted in a transitive realis clause in (8.4c) and is also the evaluated target in the *blaq* construction in (8.4b). In (8.4b), since the undergoer receives a nominative case in the *blaq* construction with the *s-* voice form, we know that, for this verb *ruruw* 'push', its *s-* form is recruited to highlight the undergoer. This is also true in (8.4c). In (8.4d), the undergoer is also the highlighted entity in an irrealis event encoded by the *Ca*-reduplicated form of *ruruw* 'push', i.e., *r-ruruw*.

However, (8.3) and (8.4) differ in the number of arguments required. A sale event as shown in (8.3) requires three arguments, with one of them functioning as an adjunct used to specify the Ground entity in the event. By contrast, there are only two arguments in the pushing event in (8.4) and, none is a peripheral argument used to encode a Ground entity. But conceptually, we know that in a pushing event, the destination is where the pushed object is located; that is, both events contain three conceptual entities, and yet they differ in how these entities are syntactically expressed.

There is another difference between the two events. In a pushing event, the actor may move along with the intrinsic undergoer. This is not the case with the sale event. In fact, the difference can be observed from the contrast between Fig. 8.1 and Fig. 8.2, with the former used to illustrate a selling event and the latter a pushing event.

Thus far, we have elaborated on the conceptual representation for events subsumed under the *Pushing* schema and also demonstrated their uses. One additional issue that is worth some attention is the nature of the Ground entity. Consider (8.5):

(8.5) *tbaziy* 'sell'

a. Q: wal=su   s-tbaziy   ima'   qu'   turuy=su?

     ASP=2SG.GEN   s-sell   who   NOM   car=2SG.GEN

     'Whom did you sell your car to?'

b. A: wal=mu   s-tbaziy   ciwas   qu'   turuy=mu.

     ASP=1SG.GEN   s-sell   PN   NOM   car=1SG.GEN

     'I sold my car to Ciwas.'

(8.5a) and (8.5b) constitute a question-answer pair. In (8.5a), the Figure (the car) is highlighted, and the new car owner following the completion of the sale is the Ground. The car owner might be construed as the subject in a sentence. However, as shown in (8.5b), that possibility is excluded, and the Ground, i.e., the car owner, is never highlighted in a sale event, or other events subsumed under the *Pushing* schema.

Table 8.2 summarizes the preceding discussions on (8.3) and (8.4):

Table 8.2: The interaction of concepts, undergoers, case-making, and four construction types for *s*- verb type (1): [Undergoer as Figure in *Pushing* schema]

	Concept	EIC & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Figure** ⟶	Intrinsic undergoer Loc2 *sa/ squ'* ⟶	*s-* ⟶	*s-* (Realis); *Ca-* (Irrealis)	---
II	Ground	undergoer Loc1 *sa/ squ'*	---	---	---
III	Figure' = Benefactee	---	---	---	--- ⟶ *s-* (3)

In Table 8.2, (I) means, based on the spatio-conceptual relationship between

participants in a sale (i.e., (8.3)) or a pushing event (i.e., (8.4)), the intrinsic undergoer as Figure is determined. The Figure undergoer is specified as a *sa*-marked argument in an EIC and is highlighted in an *s-* voice construction, as in the *blaq* construction, in the realis plain UV construction. In an irrealis plain UV construction, however, the undergoer is highlighted in a *Ca-* construction.

(Ⅱ) shows that the undergoer conceptualized as the Ground is a peripheral participant, since it is an entity entailed from the semantics of the verb base that falls under the verb type in question (see Table 8.1). The peripheral argument, according to the case marking system discussed in Chapter 2, is case-marked with Loc1 marker; and since it is a peripheral argument, it doesn't need to appear in any construction, and is indeed absent from (8.4a).

In the same table, (Ⅲ) expresses the idea that there is an applicative benefactee, which is conceptualized as Figure', and its subject status is also specified by means of the *s-* form of the verbs that fall under this type. The prime "'" is used to means that the concept is not intrinsic to the base of a verbal predicate. But why a beneficiary argument is assigned a Figure concept, it is a question worthy of a detailed study in the future.

(8.6) is a summary of the preceding discussions:

(8.6) **Conceptual and morphosyntactic representation for events encoded by verbs in the s- verb type (1)**
    In events encoded by verbs like *tbaziy* 'sell', *ruruw* 'push', *piyok* 'rent' etc., their intrinsic participants stand in a relation in which the actor exerts his or her force upon the undergoer, which causes the latter to move to a destination. Based on the event structure template for these verbs, there is only one intrinsic undergoer for them. Further, based on Talmy's framework, the undergoer is conceptualized as the Figure, as opposed to the destination which is conceptualized as the Ground. In other words, taking the spatial deployment, conceptualization, and the

morphosyntactic realization of the undergoer into account, a new verb type is distinguished, i.e., the *s-* verb type (1): [Undergoer as Figure in *Pushing* schema].

As for morphosyntactic representation, the undergoer is Loc2 *sa*-marked in an EIC clause. When expressed in a realis transitive event, it is highlighted in the *s-* voice construction, a tight relationship between the undergoer and the *s-* form is then established. Finally, when it appears in an irrealis transitive event, a *Ca*-form is used.

8.3 *s-* verb type (2): [Undergoer as Figure in *Generation* schema]

Events like driving a car or singing a song are used to illustrate a situation in which an actor performs an activity and then an abstract product is generated. The description for events of this sort can be paraphrased as:

(8.7) Actor acts on Undergoer by singing and driving, and that causes an abstract product to be generated.

From the valency perspective, constructions used to encode the events are a two-valent one. The argument structure for verbal predicates in the constructions has the following template:

(8.8) [[Actr. ACT<manner>]] CAUSE [[Undr. BECOME *<generated>*]

As stated, information conveyed within a bracket is an entailment from the semantics of the verb. That is, information about manner is implied by the verbal predicate. However, for the information designated by the slot, *<generated>*, the object or content to be generated must be specified as subject in a transitive construction, since as mentioned in Chapter 2, if result means product, the product NP is an intrinsic argument for any
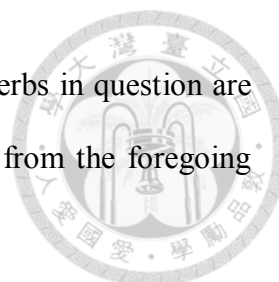
corresponding verb. In short, the template and the valence for the verbs in question are identical in the number of core arguments. This is a point distinct from the foregoing *pushing* event.

The main feature of a singing or driving event is that its duration is immaterial. Take the car-driving event as an example. Whether one has steered his vehicle for only 1 minute or for over 100 minutes, we would agree that he has performed a car-driving activity. Likewise, in the case of a singing event, even though one might have only sung half of song, he would still count as having performed a singing activity for his audience. Once someone has performed a car-driving activity or a singing activity, however short its duration is, the end product of that activity itself constitutes the content, as if the myriad little acts of driving or singing are metaphorically interpreted as moveable objects being actively transferred by the actor. Based on characteristics given for Figure and Ground in Talmy (2000: 315-16; see chapter 4), the generated object is conceptualized as Figure, or, more precisely, a composite of Figure and Ground, based on the notion of mutually-anchoring.

Now consider the morphosyntactic representation for the events. The content is encoded as subject in the construction with the *s-* form of a verb as the predicate. Based on the spatio-conceptual and the morphosyntactic representations, verbs like *pqwas* 'sing' and *quzit* 'rotate; drive a car' can be classified into the *s-* verb type (2): [Undergoer as Figure in *Generation* schema]. The schema can be diagrammed below:
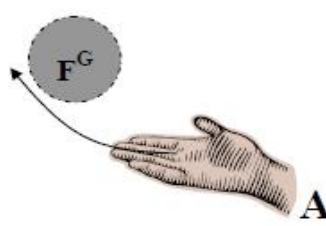
Fig. 8.3: *Generation* schema for *s-* verb type

291

In Figure 8.3, a circle, symbolized as F^G, refers to a composite of Figure and Ground and A stands for Actor. A dashline around the circle means that the object is taken as an abstract one. An upward curve symbolizes the image of generation.
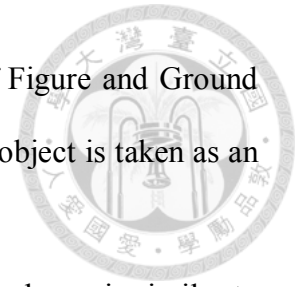
If we take a closer look at the schema, it can be seen that this schema is similar to *Pushing* schema in having the image of an object transferred from an actor. However, the two schemas are distinct with respect to the existence of a Ground object: for *Pushing* schema, there is an implicit destination conceptualized as Ground, while for *Generation* schema, there is never a need for such a Ground destination. This last point shows the two schemas are distinct.

Let's turn to the morphosyntactic representation for the schema. Consider (8.9):

(8.9) *quzit* 'rotate; drive a car'
a. nyux=ku   q<m>uzit   squ'   turuy=maku'.
    ASP=1SG.NOM   <m>rotate   LOC   wheel=1SG.GEN
    'I'm driving my car.'
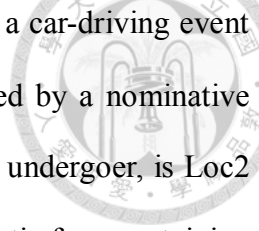
b. blaq   s-quzit   qu'   turuy   qani'.
    good   s-rotate   NOM   wheel   this
    'It is easy to drive the car (well).'

c. wal=mu   s-quzit   qu'   turuy   qani'.
    ASP=1SG.GEN   s-rotate   NOM   wheel   this
    'I have driven the car (before).'

c'. q-quzit=mu   qu'   turuy   qani'   kira'.
    CA-rotate=1SG.GEN   NOM   wheel   this   later
    'I will drive the car later.'

d. wal=mu   s-quzit   turuy   qu'   yaba'=mu.
    ASP=1SG.GEN   s-rotate   wheel   NOM   father=1SG.GEN
    'I have driven (a) car for my father (before).'

292

In (8.9a), it can be easily observed how two intrinsic participants in a car-driving event are realized; the actor *ku* '1st person singular pronoun' is introduced by a nominative case, and the undergoer *turuy=maku'* 'my car', as the only intrinsic undergoer, is Loc2 *squ'*-marked. In (8.9b), the *blaq* construction is designed as a diagnostic for ascertaining the correct voice form to use in order to activate the undergoer as the highlighted entity, and the sentence means tat the *s-* form of *quzit* "to rotate; to drive a car" is the appropriate voice form. Furthermore, in (8.9c), it can be observed a tight relationship between the undergoer subject and the verb *s-quzit* 'rotate; drive a car' in a *s-* form. Thus via (8.9b) and (8.9c), we know the verb *quzit* 'rotate; drive a car' is categorized into *s-* class. (8.9c') is an irrealis transitive construction in which the undergoer *turuy qani'* 'this car' is the subject and the verb is a Ca-reduplicative form. In (8.9d), a *s-* clause, but since the highlighted beneficiary argument is not in the same category as the Loc2 *squ'*-marked argument in (8.9a), the sentence plays no role at all in verb classification.

Similarly, events about singing are realized in the same way as car-driving events shown in (8.9). Consider (8.10):

(8.10) *pqwas* 'sing'

a. nyux   mqwas   sa   qutux   qwas   qu'   qpatung.
    ASP   m.sing   LOC   one   song   NOM   frog
    'Frogs are singing a song.'

b. blaq   s-pqwas   qu'   qwas   qa'.
    good   s-sing   NOM   song   DEM
    'It is easy to sing the song well.'

c. wal=mu   s-pqwas   qu'   qwas   qa' la'.
    ASP=1SG.GEN   s-sing   NOM   song   DEM FP
    'I have sung the song (before).'

c'. p-pqwas=mu   qu'   qwas   qa' kira'.

CA-sing=1SG.GEN   NOM   song   DEM later

'I will sing the song later.'

d. wal=mu   s-pqwas qwas   qu'   laqi'=mu.

ASP=1SG.GEN   s-sing   song   NOM   child=1SG.GEN

'I sang (a) song for my child.'

(8.10a) is an EIC construction, in which *qutux qwas* 'a song' is a Loc(2) object. (8.10b) is a *blaq* construction, in which *qwas* 'song' is highlighted in the *s-* form of the verb *pqwas* 'to sing'. Likewise, in (8.10c), it is the verb *s-pqwas* 'to sing (in *s-* form)' used and *qwas qa'* 'the song' is the highlight entity. (8.10c') illustrates an irrealis transitive event, and *qwas qa'* 'the song' is highlighted. (8.10d) is a beneficiary construction where a non-intrinsic argument is highlighted.

The preceding discussions on (8.9) and (8.10) can be summarized in Table 8.3:

Table 8.3: The interaction of concepts, undergoers, case-making, and four construction types for *s-* verb type (2): [Undergoer as Figure in *Generation* schema]

	Concept	EIC & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
I	**Figure** ⟶ **(i.e., an amalgam of Figure and Ground)**	Intrinsic undergoer	Loc2 ⟶ *sa/ squ'*	*s-* ⟶	*s-* (Realis); *Ca-* (Irrealis)	---
II	Figure' = Benefactee	---	---	---	---	*s-*

In Table 8.3, (I) shows that Figure (i.e., a composite of Figure and Ground) is encoded

294

as the intrinsic undergoer, is Loc2 *sa/squ'*-marked in an EIC and the Figure undergoer is attested in a *blaq* construction and in a realis transitive clause where the *s-* form of verbs is used, rather any other voice form. (Ⅱ) is designed to show that a beneficiary subject appears in an *s-* construction. Since such a beneficiary argument is not an intrinsic argument of verbs like *quzit* 'rotate; drive a car' and *pqwas* 'sing', the argument cannot appear in any other construction types in the table.

(8.11) is a summary of the *s-* verb type (2): [Undergoer as Figure in *Generation* schema]:

(8.11) Conceptual and morphosyntactic representation for events encoded by verbs in the *s-* verb type (2)

In events encoded by verbs like *pqwas* 'sing' and *quzit* 'rotate; drive a car', their intrinsic participants stand in a relation where an actor exerts his or her force upon an intrinsic undergoer, generating a product as a result. The product refers to content which is entailed from the intrinsic undergoer. The undergoer is encoded as the highlighted entity in the *s-* clause.

In terms of Talmy's framework to realize the events, the undergoer is conceptualized as the Figure, relative to the destination conceptualized as Ground. In other words, taking the spatial deployment, conceptualization, and the morphosyntactic realization of the undergoer into account, a new verb type is distinguished, i.e., the *s-* verb type (2): [Undergoer as Figure in *Generation* schema].

As for morphosyntactic representation, the undergoer is *sa*-marked in an EIC clause structure. When expressed in a realis transitive event, it is highlighted in constructions with the *s-* form of a verb, a tight relationship between the undergoer and the *s-* form is then established. When the undergoer appears in an irrealis transitive event, a *Ca*-form is used.

8.4 *s-* verb type (3): [Undergoer as Figure in *Cause* schema]
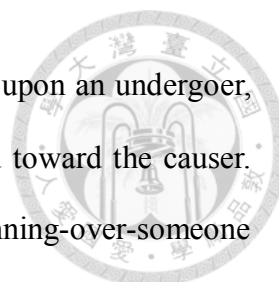
There are situations in which one participant, as a causer, acts upon an undergoer, bringing the undergoer into some emotional state which is directed toward the causer. Examples includes a sympathizing event, respecting event, winning-over-someone event etc. These events are complex events comprised of a causal and a resultative state. The following excerpt is an illustration:

(8.12)

a. (Sinica Archive: 12-009-b)
    hwag-an   "yutas"   so-n=nya'   ma'.
    shout-an   grandfather   say.thus-un=3SG.GEN   QUOT
    'He shouted, "Grandfather!"'

b. (Sinica Archive: 12-009-c)
    "ngungu'=su maki'   zik"   so-n=nya'   ma'.
    fear=2SG.GEN m.exist   bottom   say.thus-un=3SG.GEN   QUOT
    'He said, "Are you scared of staying down below (alone)?"'

c. (Sinica Archive: 12-009-e)
    "ay,   kat-un=su   ngarux   la'" so-n=nya'   ma'.
    EXCL   bite-un=2SG.GEN   bear   FP   say.thus-un=3SG.GEN   QUOT
    '"Oh! The bear will eat you", he said.'

d. (Sinica Archive: 12-011-a)
    "isu',   isu',   s-galu'=maku'   wa'."
    2SG.NEU 2SG.NEU s-sympathize=1SG.GEN FP
    '"Oh! It's you whom I pity."'

e. (Sinica Archive: 12-011-b)
    wah-an   nyux   "k<m>at ngarux   la'"   so-n=nya'
    come-an ASP   <m>bite bear   FP   say.thus-un=3SG.GEN
    mga'.
    QUOT:FP
    '"The bear will eat you." He said so.'

(8.12) is a conversation between an old man and a young man. In the scenes depicted in (8.12a-c), the old man stayed alone on the ground; without his accompaniment, the young man thought that the old man might be scared since the bear might come to eat him. Since old man didn't climb to the top of the tree, as the young man did and that made the young man show sympathy for the old man, as illustrated in (8.12d). That is, using a construction with a *s-* verb as its predicate to indicate that the young man's sympathy is driven by a causal event. This excerpt can be represented in terms of the following causal chain:
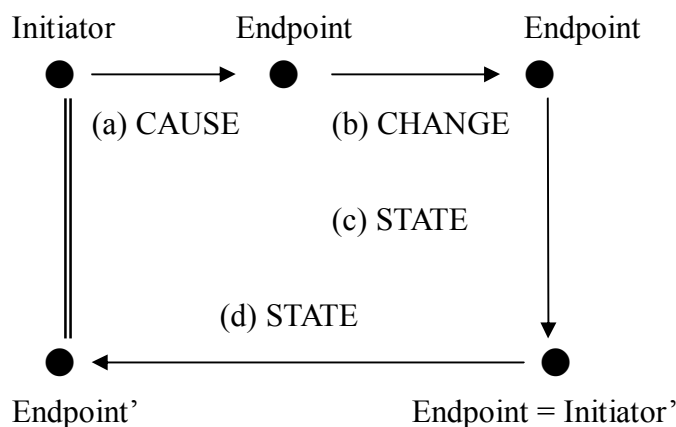
Fig. 8.4: Causal chain for a Complex Event (adapted from Talmy 1976, 1985, 1988, Croft 1991)

In Fig. 8.4, a causal event is composed of (a), (b) and (c), which correspond more or less to the expressions in (8.12a-c). The causal chain is bidirectional, i.e., starting from the initiator toward the endpoint and ending at the initiator. (d) stands for a resultative event and corresponds to the expression in (8.12d). Initiator in this figure refers to the old man in (8.12), and Endpoint is the young man (as if his suggestion were rejected by the old man). 'Initiator' refers to the young man, since he dominates over the ensuing emotion state, namely, he supposes the old man will be scared, so he expresses his concern for the old man. The old man is then the Endpoint', i.e., concern receiver, and

structurally, is specified as the undegoer of the verb *s-galu'* 'sympathize'. In brief, without the preceding events as described in (8.12a), (8.12b), and (8.12c), the *s-galu'* clause as in (8.12d) cannot be used.
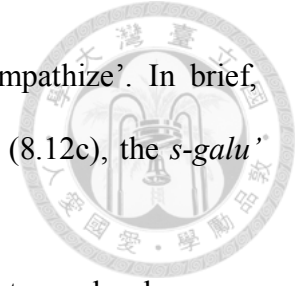
For events identified in this excerpt, their event structure template can be shown as follows:

(8.13) [Causer CAUSE [Affectee TO COME TO BE IN *<state>* AT Causer]]

In (8.13), information enclosed in the bracket is the ontological category of a verb base. Take the verb *galu'* 'sympathetic' in Squliq Atayal as an example. Its ontological category is an emotional state; in addition, causer and affectee are two types of important information to be specified in events of this type. (8.13) can be paraphrased as:

(8.14) A causer does something that brings an affectee into a state, and the state the affectee is in is directed toward the causer.

Note that the verbs investigated in the present section are used to encode the latter part in (8.14), i.e., *the state where the affectee is in is directed toward the causer*. Since, as stated, for the nominative NP as in the *s-* construction like (8.12d), its causer role is more salient than its receiver role, (8.12d) can be read as *It is you, the old man, that brings me into the state of sympathy for you*. In short, the nominative NP in (8.12d) is realized as a causer participant or conceptualized as force which drives the genitive affectee into some emotional state. In addition to, *galu'* 'to sympathize', *ngungu'* 'be scared of', *tatux tunux* 'respect (by means of nodding)', *s-laqux* for *laqux* 'to win over', etc are verbs that behave similarly.

Now since the sentences in (8.12) are used to express a situation in which the causer is construed as a force that acts on an affectee and then the affectee reacts to the force, resulting in an emotional state; as a result, it is better conceptualized as Figure, or a self-referencing Figure. In other words, the spatial organization and the conceptual relationship between core participants together determine the formation of a new schema, called *Cause* schema. It can be diagramed below:
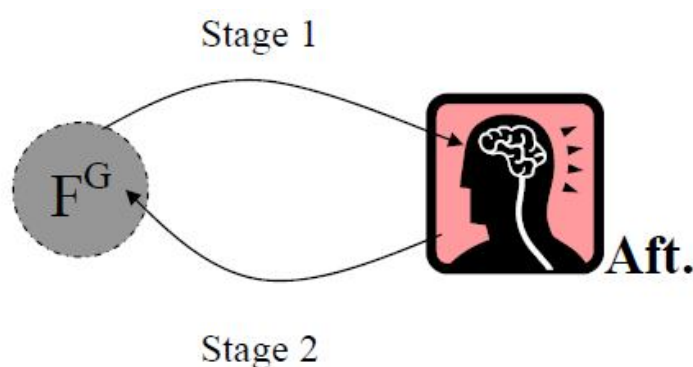

Fig. 8.5: *Cause* schema for *s-* verb type

In Figure 8.5, Aft. stands for affectee, while F^G, a self-referencing Figure, refers to causer or cause. We outline the Figure with a dashline for its abstract property and shadow it for its highlight role in a transitive event. The affectee-ward line is designed for the idea that a causer releases content that attracts the affectee's attention. Stage 1 represents this line. On the contrary, the Figure-ward line is to express that the affectee then responds to the Figure, for example, by means of giving his respect to it. This is Stage 2.

Let's turn to the question of how instance events of the schema are expressed morphosyntactically. Consider (8.15) and (8.16):

(8.15) *galu'* 'sympathize'

a. g\<m>alu'=ku   balay   sa ciwas.
     \<m>sympathize=1SG.NOM   true   LOC PN
     'I have sympathy for Ciwas.'

b. zinga'   balay   s-galu'   na' squliq   qu' ciwas.
     quick   true   s-sympathize   GEN person   NOM PN
     'Ciwas is the person people really have sympathy for.'

c. wal=mu   s-galu'   qu'   ciwas.
     ASP=1SG.GEN   s-sympathize   NOM   PN
     'I have had sympathy for Ciwas (before).'

c'. g-galu'=mu   qu'   ciwas.
     CA-sympathize=1SG.GEN NOM   PN
     'I will have sympathy for Ciwas.'

d. s-galu'=mu   sa ciwas   qu'   yumin.
     s-sympathy=1SG.GEN   LOC PN   nom   PN
     'I have sympathy for Ciwas for Yumin.'

In a sympathizing event, there are two core participants involved, an Affectee and Causer. In (8.15a), the Affectee is the first person singular participant in nominative case, and the Causer is marked with a Loc2 *sa* case marker. In (8.15b), it depicts a situation where Ciwas is, for example, in distress that causes people have sympathy for her. The *zinga'* UV qu' O construction (abbreviated as the *zinga'* construction) in (8.15b) has the same function as the *blaq* UV *qu'* O construction, a construction used for evaluating the O participant in events. The *zinga'* construction is used to evaluate a participant in O role functioning as the subject of a verb in *s-* clause (8.15c) is a realis UV clause, in which the core undergoer is the subject of *a* s- verb. Thus the verb *galu'* 'sympathize' is classified as falling under the *s-* verb class and there is an inherent relationship between its Figure undergoer subject and the *s-* form of the verb. In (8.15c'), the Figure

300
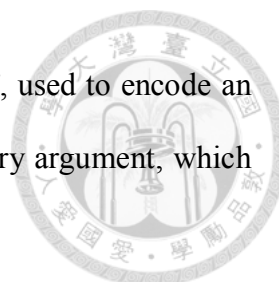
undergoer is the subject of the Ca-reduplicated verbal form, *g-galu'*, used to encode an irrealis event. In (8.15d), a *s-* clause is used to highlight a beneficiary argument, which is not a core argument for a typical sympathizing event.

In addition to the sympathizing event, a winning event is another instance for the *Cause* schema. The causer in a winning event can be metaphorically realized as a force which drives the Affectee into a state of winning. That is the reason for why a winning event is categorized into *Cause* schema.

Now Consider (8.16):

(8.16) *laqux* 'win'
a. musa'=ku   l\<m\>aqux   sa   ciwas.
    ASP=1SG.NOM   \<m\>win   LOC   PN
    'I am going to beat Ciwas.'

b. blaq   s-laqux   qu'   ciwas.
    good   s-win   NOM   PN
    'It is easy to beat Ciwas (because she often loses). '

c. wal=mu   s-laqux   qu'   la'.
    ASP=1SG.GEN   s-win   PN   FP
    'I (have) beaten Ciwas (before).'

c'. l-laqux=mu   qu'   ciwas   la'.
    CA-win=1SG.GEN   NOM   PN   FP
    'I will beat Ciwas.'

d. s-laqux=mu   sa   ciwas   qu'   yumin.
    s-win=1SG.GEN   LOC   PN   NOM   PN
    'I beat Ciwas for Yumin.'

In (8.16a), a Nominative-marked argument serves as the Affectee and a Loc2 *sa*-marked argument, Causer. In (8.16b), the core undergoer is attested in a *blaq* construction, in

301

which the *s-* form of the verb *laqux* 'win' is employed. In (8.16c), the core undergoer is taken as the subject of the verb's *s-* form in a realis UV clause. Take (8.16b) and (8.16c) into consideration together. An inherent relationship between the core undergoer and the *s-* form of *laqux* 'win' is conspicuous. (8.16c') is an expression for the core undergoer as the subject in an irrealis UV transitive clause, where a *Ca*-reduplicated verbal form, i.e., *l-laqux*, is used. (8.16d) also illustrates the use of the *s-* form of the verb *laqux* 'win', in which, the nominative case is assigned to the beneficiary argument and the nominative NP is not the undergoer in a respective event.

To sum up the preceding discussions on (8.15) and (8.16), we construct the following table:

Table 8.4: The interaction of concepts, undergoers, case-making, and four construction types for *s-* verb type (2): [Undergoer as Figure in *Generation* schema]

	Concept	EIC & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction
(I)	**Figure (i.e., an amalgam of Figure and Ground)** →	Intrinsic undergoer	Loc2 *sa/ squ'* → s- →	s- (Realis); *Ca-* (Irrealis)	---
Ⅱ	Figure' = Benefactee	---	---	--- →	---	s-

In Table 8.3, (I) is designed to indicate that the intrinsic undergoer of the verb under *Cause* schema is the Figure. The Figure undergoer is encoded as a Loc2 *sa/squ'*-marked argument in an EIC and is the subject in *s-* constructions, including a *zinga'/blaq*

302

construction and a realis plain UV construction; but, in an irrealis plain UV construction, the undergoer in the same conceptual category is the subject of a *Ca-* verb.

(Ⅱ) points out that there is an applicative benefactee, which is conceptualized as Figure', and its subject status is also encoded by the *s-* form of the verbs that fall under this type.

(8.17) is a summary of the *s-* type (3):

(8.17) Conceptual and morphosyntactic representation for events encoded by verbs in the *s-* verb type (3)

In events encoded by verbs like *galu'* 'to sympathize', *tatux tunux* 'to respect (by means of nodding)', *laqux* 'to win over', their core participants are in a relation that one drives the other into a state; for the former, it is realized as Causer, while for the latter, as Affectee. With an aid of the causal chain analysis, the Causer participant is the undergoer of these verbs. In terms of Talmy's framework, the Causer undergoer is conceptualized as Figure. Take the spatial deployment, conceptualization, and the morphosyntactic realization of the undergoer into account. A new verb type is distinguished, i.e., the *s-* verb type (3): [Undergoer as Figure in *Cause* schema].
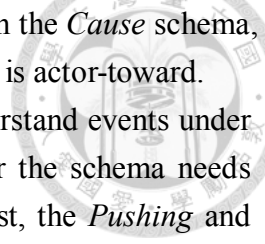
At the level of the morphosyntactic representation, the undergoer is Loc2 *sa-*marked in an EIC clause. In a *blaq* or *zinga'* construction and a realis transitive event, the undergoer is the subject of the *s-* form of verbs. In an irrealis transitive clause, a *Ca-*form is used to highlight the Figure undergoer.

8.5 Concluding remarks on three verb types in the *s-* class

Let's summarize the three schemas in two dimensions, i.e., their similarities and differences. First is about their differences:

(8.18)

iii.   For the *Pushing* and the *Generation* schema, their undergoer can be

realized as an object released from the actor; however, in the *Cause* schema, its undergoer moves in the reversed direction, namely, it is actor-toward.

iv.   Since it involves a complex event, it is not easy to understand events under the *Cause* schema. The event specified by verbs under the schema needs one or more prior events as its precondition. In contrast, the *Pushing* and the *Generation* schema can be understood without prior events as the precondition.

v.   For the physical property of their Figure undergoer, it is a concrete object in the *Pushing* schema, but it is an abstract one in the other two schemas.

vi.   There is a Ground concept in the *Pushing* schema, though often left unspecified structurally; but for the other two schemas, there is no the concept of the sort.

Regarding their similarity, the most remarkable one is their intrinsic undergoer is a movable object. Other similarities can be seen from the morphosyntactic representation.

Compared their differences with similarities, it can be easily found that it is the conceptual level their differences bring forth, whereas most similarities display at the level of morphosyntax. This idea applies to the schemas under other two verb classes, the *-an* and the *-un* class.

CHAPTER 9

THE COMPOSITE CLASS: THE *s-/-an* AND THE *s-/-un* COMPOSITE VERB TYPE

9.1 Introduction

This chapter deals with verbs that belong to the composite class, namely, verbs that have two intrinsic undergoer arguments and each is specified as the subject of a distinct plain UV clause structure. Two subtypes of this class are further distinguished in Squliq Atayal, the *s-/-an* and the *s-/-un* composite verb types. Verbs like *biq* 'give', *paqut* 'ask', *cbaq* 'teach', and so on belong to the first subtype; *kal* 'discuss; talk about' and *syuk* 'act in turn; retaliate; answer' are the only two members of the second subtype. These verbs are analogous to Margetts' (2007) root ditransitive verbs, which are used to encode three-participant events where three participants are each expressed as the direct argument of a verb without valency-increasing strategies involved.[32]

9.2 *s-/-an* composite verb type: [Undergoers as Figure and Ground in *Conveyance* schema]

Events like giving somebody something, asking somebody something, and pasting something somewhere, etc. describe a situation in which an actor causes an object to move toward a goal and the object is eventually located there. There are three participants involved in events of this type. Based on Talmy's framework, the moved object is conceptualized as the Figure, while the goal is the Ground. The Figure and the Ground are undergoers subcategorized for by verbs encoding the events in question.

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[32] Anna Margetts (2007) distinguishes three types of three-place verbs: root ditranstive verbs, causative verbs, and applicative verbs. The first refers to the type examined in the present chapter, in which the encoding of any direct or intrinsic argument as clausal subject does not involve valency-increasing strategies. The second refers to the verb type in which the verb root is transitive, and a third argument is licensed by a causative marker. In the applicative type, its verb root is also transitive and a third argument is derived from applicativization.

Both are highlighted, but must be highlighted in two different clause patterns: the Figure in the *s*- clause, while the Ground in *-an* clause. Based on the conceptualization of undergoers, spatial arrangement of participants in events, and the morphosyntactic representation of verbs, we identify a new verb type termed ***s-/-an* composite verb type: [Undergoers as Figure and Ground in *Conveyance* schema]**.

Verbs like *biq* 'give', *paqut* 'ask', and *qapax* 'paste up' belong to this type. This verb type can be considered as a composite of the three verb types discussed in the preceding sections, namely, the *-an* verb type (1) schematized as *Placement* (I), the *-an* verb type (7) schematized as *Placement* (Ⅱ), and the *s-* verb type (1) schematized as *Pushing*. Of the three verb types, the first two are used for highlighting the Ground participant and the last, the Figure participant. But since verbs like *biq* 'give', *paqut* 'ask', and *qapax* 'paste up' have two undergoer arguments, distinct from *tmami'* 'pickle', *kita'* 'see' and *tbaziy* 'sell' which highlight only one undergoer, i.e., Ground, and that is why a new verb type for verbs like *biq* 'give' etc. must be recognized. The new verb type can be diagrammed below:
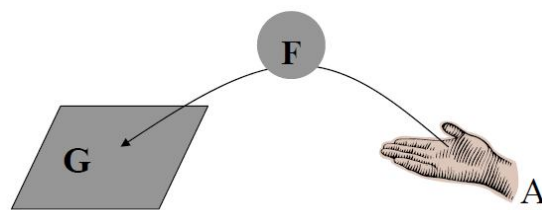
Fig. 9.1: *Conveyance* schema

In Fig. 9.1, A means the Actor, F, the Figure and G, the Ground. The curve stands for a triggering action the Actor exerts upon the Figure, causing it to move toward the Ground. Also seen from Fig. 9.1, shading both the Figure and the Ground means the two are highlighted in separate clause types. Note that the Figure can be either concrete or

306

abstract, and thus it is not shown in a dotted line or a solid line. This is different from the Figure found in the *-an* verb type (1).
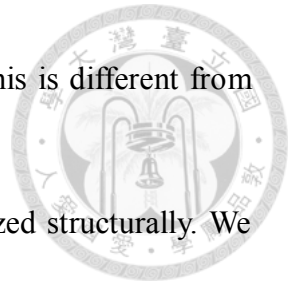
Consider now how events in the *Conveyance* schema are realized structurally. We will take up the 'giving' event first:

(9.1) *biq* 'give'

a. nyux=saku'   miq   sa pila'   i' ciwas.
    ASP=1SG.NOM   m.give   LOC money   LOC PN
    'I'm giving Ciwas (the) money.'

b. blaq   biq-an ana'   nanu'   qu'   ciwas.
    good   give-an no.matter   what   NOM   PN
    'It was easy to give Ciwas anything. (Lit., Ciwas would take anything given to her).'

b'. blaq   s-biq   qu'   pila'=nya'.
    good   s-give   NOM   money=3SG.GEN
    'It was easy (for him) to give his money away (because he was generous with his money).'

c. wal=mu   biq-an   pila'   qu'   ciwas.
    ASP=1SG.GEN   give-an   money   NOM   PN
    'I have given Ciwas money (before).'

c'. biq-un=mu   pila'   qu'   ciwas   kira'.
    give-un=1SG.GEN   money   NOM   PN   later
    'I will give Ciwas money.'

d. wal=mu   s-biq   ciwas   qu'   pila'=nya'   la'.
    ASP=1SG.GEN   s-give   PN   NOM   money=3SG.GEN   FP
    'I gave his money to Ciwas.'

d'. b-biq=mu   sa   ciwas   qu'   pila'.
    CA-give=1SG.GEN   LOC PN   NOM   money
    'I will give (the) money to Ciwas.'

307

e. yumin   qu'   nyux=mu   s-biq   pila'   i'   ciwas.
   PN   NOM   ASP=1SG.GEN s-give   money   LOC PN
   'It is for Yumin that I have given money to money.'

In (9.1a), the giver (i.e., =*saku'* 'the first person singular nominative bound pronoun') is marked with nominative case, the object transferred is conceptualized as the Figure (i.e., *pila'* 'money'), and is marked by Loc(2) *sa*, and the recipient is conceptualized as the Ground (i.e., *Ciwas* 'Ciwas, a female name'), and is marked by Loc(2) *i'*. As pointed out earlier, the two Loc(2)-marked participants may be highlighted in a transitive clause. This is evidenced in (9.1b) and (9.1b'). In (9.1b), *Ciwas* is an evaluated target in the *blaq* construction and the -*an* form of the verb *biq* 'give' is employed; in (9.1b'), *pila'=nya'* 'his money' is an evaluated target in another *blaq* construction with the *s*-form of the verb *biq* 'give'. That is, two types of clauses are required to implement the syntax of the various participants in the 'giving' frame: one is for highlighting the Ground and the use of -*an* form, and the other is for highlighting the Figure and the use of *s*- form. In (9.1c), the Ground entity *Ciwas* is highlighted in a transitive realis event encoded by *biq-an* 'give', and in (9.1d), it is the *s*- form of the verb *biq* 'give' used to highlight the Figure entity in a transitive realis event. As for (9.1c') and (9.1d'), they are used to express an irrealis event in which a Ground entity and a Figure entity are respectively highlighted in an -*un* form and in a CA-reduplicated voice form of the verb *biq* 'give'. (9.1e) also illustrates the use of the *s*- form of the verb *biq* 'give', in which the nominative case is assigned to the beneficiary argument and thus the nominative NP is not the undergoer in the event in question.
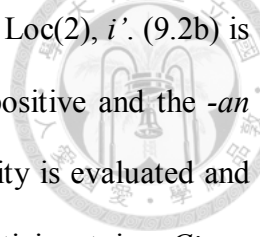
The asking event is another instantiation of the *Conveyance* schema, as illustrated in (9.2):

(9.2) *qaput* 'ask'

a. nyux=ku   maqut   i' ciwas   sa   qutux   zyaw.
    ASP=1SG.NOM m.ask   LOC PN   LOC   one   thing
    'I am asking Ciwas a question.'

b. ana'   nanu'   zyaw   ga', blaq   pqut-an   qu'   ciwas,
    no.matter what   thing TOP good   ask-an   NOM   PN
    maha'   qu'   yaya'=nya'.
    QUOT   nom   mother=3SG.GEN
    'Her mother said, no matter what it was, when people ask Ciwas, they always
    got a proper answer from her. (Lit., It was easy to ask questions of Ciwas.)'

b'. blaq   s-paqut   qu'   zyaw   qasa'.
    good   s-ask   NOM   thing   that
    'The question is not a tough one (i.e., asking people this question will not
    bother them). (Lit., It is easy (for you) to ask (people) this question.'

c. wal=mu   pqut-an sa zyaw   qasa'   qu'   ciwas   la'.
    ASP=1SG.GEN ask-an   LOC thing that   NOM   PN   FP
    'I have asked Ciwas that question (before).'

c'. pqut-un=mu   sa zyaw   qasa qu'   ciwas   kira'.
    ask-un=1SG.GEN   LOC thing   that NOM   PN   later
    'I will ask Ciwas that question later.'

d. wal=mu   s-paqut sa ciwas   qu'   zyaw   qasa'.
    ASP=1SG.GEN s-ask   LOC PN   NOM   thing   that
    'I have asked Ciwas that question (before).'

d'. p-paqut=mu   sa   ciwas   qu'   zyaw   qasa'.
    CA-ask=1SG.GEN LOC PN   NOM   thing   that
    'I will ask Ciwas the question.'

(9.2a) is an EIC with the actor marked with nominative, *qutux zyaw*, which is the

undergoer conceptualized as the Figure, is marked with Loc(2) *sa*, and Ciwas, which is

the undergoer conceptualized as the Ground and is also marked with Loc(2), *i'*. (9.2b) is a *blaq* construction where the Ground participant is evaluated as positive and the *-an* form of the verb *paqut* 'ask' is employed. In (9.2b'), the Figure entity is evaluated and the *s-* form is used in the *blaq* construction. In (9.2c), the Ground participant, i.e., *Ciwas*, is marked with nominative in an *-an* clause structure. In (9.2c'), as in (9.2c), the Ground participant is highlighted; however, distinct from (9.2c) is, the *-un* form of the verb is used to express an irrealis event. The contrast between (9.2c) and (9.2c') has been pointed out in the previous discussion on the *-an* verb type. When the Ground is to be highlighted, *paqut* 'ask' is classified as the *-an* verb type. When the Figure is to be highlighted, the verb belongs to the *s-* verb type. Therefore, in (9.2d), in a *s-* clause structure, the Figure entity, *zyaw qasa'* 'that thing', is nominative and highlighted in a realis *s-* clause. In (9.2d'), the verb is a reduplicated form to express an irrealis event and to highlight the Figure entity.

We now summarize the preceding discussions on (9.1) and (9.2) below:

Table 9.1: The interaction of concepts, undergoers, case-making, and four construction types for *s-/-an* verb type: [Undergoers as Figure and Ground in *Conveyance* schema]

	Concept	EIC & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction (reality status)
I	**Figure** → Undergoer	Loc(2) → *sa* NP	*s-* →	*s-* (Realis)	---
II	**Ground** → Undergoer	Loc(2) → *sa* or *i'* NP	*-an* →	*-an* (Realis)	---
III	Figure" = Benefactee	---	---	---	---	*s-* (3) →

As clearly shown in Table 9.1, for verbs subsumed under the *Conveyance* schema, there are two intrinsic undergoers, one conceptualized as the Figure and the other as the Ground; furthermore, in an EIC, both are introduced with a Loc(2) marker, *sa* (or *i'* for personal names) and occur in the *blaq* construction, employing the *s-* form of the verb when the undergoer NP is the Figure, or the *-an* voice construction when the undergoer NP is the Ground. Also note that except for *biq* 'give', the *s-* form of the verbs is also recruited to highlight an applicative benefactee subject, which is conceptualized as the Figure" entity.

Table 9.2 is a simplified version of Table 9.1:

Table 9.2: A syntactico-semantic template for the relationship between verbs in *s-/-an* composite verb type and their (non-)intrinsic undergoer arguments

Non-actor clause type	*blaq* construction	Plain construction UV	Case marking in EIC	As intrinsic undergoer (Concept)
-an	●	●	*sa*	Yes (Ground)
-un	---	●	---	---
s-	●	●	*sa*	Yes (Figure)

In Table 9.2, the verbs *biq* 'give' and *paqut* 'ask' are categorized as a composite verb type comprised of the *-an* verb type and the *s-* verb type. The *-un* form plays no role in determining their verb type.

(9.3) summarizes the preceding discussions.

(9.3) Conceptual and morphosyntactic representations for events encoded by verbs in *s-/-an* composite verb type

In events encoded by verbs like *biq* 'give', *paqut* 'ask', and *qapax* 'paste up' etc., their core participants are in a relation in which the Actor exerts force upon one Undergoer and has it conveyed to another undergoer. In terms of Talmy's framework, the undergoer that is 'conveyed' is conceptualized as the Figure, and the one receiving the Figure is conceptualized as the Ground. Morphosyntactically, the Figure and the Ground are respectively highlighted in a *s-* and an *-an* clause. That is, taking the spatial deployment, conceptualization, and the morphosyntactic realization of the undergoer into account, a new verb type is distinguished, *s-/-an* composite verb type: [Undergoers as Figure and Ground in *Conveyance* schema].

With regard to morphosyntactic representation, the two undergoers are *sa*-marked in an EIC clause. When they are expressed in a realis transitive event, as mentioned, they are respectively highlighted in constructions with the *s-* form and the *-an* form of the verb. When they appear in an irrealis

transitive event, a *Ca*-form and the *-un* form are then used respectively.

9.3 *s-/-un* composite verb type: [Undergoers as Figures in *Reciprocation* schema]

kal 'to discuss; to talk' is used in a situation in which one participant initiates a topic to communicate with another participant for the purpose of clarifying up things under discussion for mutual benefit. In this situation, the content of the talk is conceptualized as an abstract object that is transmitted between the participants. From the perspective of valency, constructions used to encode events of this type are three-valent ones, including an actor or a topic initiator, content (of talk), and a recipient-respondent. The language takes the actor as the subject in a *m-* or *<m>* clause structure, the content as the subject in a *s-* clause structure, and the recipient as the subject in an *-un* clause structure.

From the perspective of event conceptualization, three points are worth making. First is regarded with the actor. In any discussion, the actor plays two roles alternately, the role of recipient and the role of topic initiator. From the perspective of kinematics, the two participants are undertaking a reciprocal motion, in which the content talked about is analogous to an object transmitted between them.

The second point is associated with the recipient. In a talk exchange, the recipient participant role at one point in time is a recipient, but can assume the role of a topic initiator at another point. In other words, he or she is a dynamic entity rather than an absolutely stationary entity as a mere container of information, as with the recipient in the *Conveyance* schema discussed earlier. This means that the possibility of conceptualizing the participant as the Ground is excluded. A simplified relation of the recipient-respondent as topic initiator is represented in the following template:

313

(9.4) [[Actr. ACT<manner>]] CAUSE [[Undr. BECOME<*react*>]

(9.4) is repeated from (7.25) (see Section 7.9 in Chapter 7). Since the recipient-responder can react to information conveyed from the actor much like the undergoer of the verb *s'ang* 'scold' in *Triggering* schema (see (6.26) in Section 7.9 in Chapter 7) reacts by being in a bad mood or by crying. The role in question can also be affected in a transitive realis event and thus is assigned the role of undergoer. From the perspective of conceptualization, the role is a Figure or a self-referencing Figure entity.

The third point is concerned with content. Since content is construed as a movable object being continuously transmitted between the two participants, in terms of Talmy's Figure-Ground dichotomy, content is conceptualized as Figure. Besides, as to other two types of participants in a given situation, it is also an undergoer.

Based on the last two points, it can be noticed that the verb *kal* 'discuss; talk about' can be considered as a composite of two verb types, namely, the *-un* verb type (8) schematized as *Triggering*, and the *s-* verb type (1) schematized as *Pushing*.

Therefore, taking the three points and the morphosyntactic realization together into account, a new verb type is then distinguished, i.e., ***s-/-un* composite verb type: [Undergoers as Figures in *Reciprocation* schema]**. The event in question can be schematized as below:
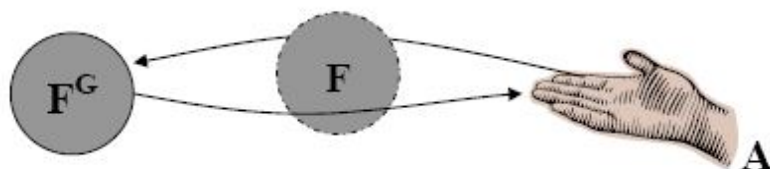
Fig. 9.2: *Reciprocation* schema

In Fig. 9.2, the icon hand stands for Actor or Topic initiator (symbolized as A), F^G, Recipient, and F content. Figure in a dotted line is to show it is an abstract entity. The two arrows are designed for expressing the idea that the content is being constantly transmitted between the two participants in any talk exchange. Note that, to the best of my knowledge, the verb type forms a very small class with only one member, i.e., *kal*, found thus far.

Let us proceed to consider how various aspects of the event are represented structurally, as illustrated in (9.4):

(9.4) *kal* 'discuss; talk about'
a. nyux=saku' k<m>al   i'   ciwas   squ' zyaw   na' amuy.
   ASP=1SG.NOM <m>talk   LOC PN   LOC thing   GEN PN
   'I am having a talk about Amuy with Ciwas.'

b. blaq   kyal-un ana'   nanu'   qu'   ciwas.
   good   talk-un no.matter   what   NOM   PN
   'It is easy to talk to Ciwas about anything. (Lit., Ciwas is such a person willing to discuss anything with others.)'

b'. kyal-un=mu   pisuy   maha',   "psyug-i' qu'   pila'
    talk-un=1SG.GEN   PN   QUOT   return-i' nom   money
    ga'?"   wal s'ziy   te binah   qu'   tunux=nya';
    FP   ASP turn   LOC side   NOM   head=3SG.GEN
    yaqih   balay   kyal-un."
    bad   true   discuss-un
    'When I talked Pisuy, "Would you please return money (to me)?" She (ignored me and) turned to the other side (Lit., Her head turned to the other side). She is indeed someone hard to discuss anything with.'

c. *blaq   kyal-an ana'   nanu'   qu'   ciwas.
   good   talk-an no.matter   what   NOM   PN
   '??? It is easy to talk to Ciwas about anything.'

c'. (b)iq-ay qu' kyal-an qasa'. biq-ay=mu ke'
give-ay NOM talk-an that give-ay=1SG.GEN word
qu' ciwas.
NOM PN
'Hand me that telephone(, please)! I would like to phone Ciwas.'

c''. kyal-an cikay isu' qu' zyaw=naha'.
talk-an a.bit 2SG.NOM.FR NOM thing=3PL.GEN
'Would you please talk (to me) about their thing?'

d. zihung s-kal sa squliq qu' zyaw qasa'.
difficult s-talk LOC man NOM thing that
'It is difficult to discuss with people about that thing (because of privacy).'

e. wal=mu kyal-un qu' ciwas la'.
ASP=1SG.GEN talk-un NOM PN FP
'I talked to Ciwas (about the thing).'
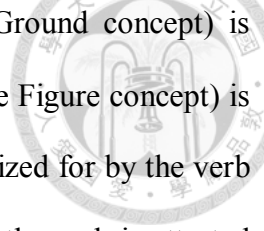
e'. musa'=mu kyal-un qu' ciwas la'.
ASP=1SG.GEN talk-un NOM PN FP
'I will/am going to talk to Ciwas (about the thing).'

f. wal=mu s-kal i' ciwas qu' zyaw qasa'.
ASP=1SG.GEN s-talk LOC PN NOM thing that
'I talked about that thing with Ciwas.'

f'. k-kal=mu i' ciwas qu' zyaw qasa'.
CA-talk=1SG.GEN LOC PN NOM thing that
'I will talk about that thing with Ciwas.'

g. yumin qu' s-kal-maku' i' ciwas sa zyaw qasa'.
PN NOM s-talk=1SG.GEN LOC PN LOC thing that
'I talked to Ciwas about that thing for Yumin. (Lit., It is for Yumin that I talked to Ciwas about that thing.)'

In (9.4a), the topic initiator =saku' '1st person singular nominative bound pronoun' is

316

the subject, the topic's receiver and respondent *Ciwas* (i.e., the Ground concept) is Loc(2)-marked, and the topic *zyaw na' amuy* 'Amuy's thing' (i.e., the Figure concept) is also Loc(2)-marked. All the three types of arguments are subcategorized for by the verb *k<m>al* 'discuss; talk about'. In (9.4b) and (9.4b'), the *-un* form of the verb is attested in the *blaq* construction in which the content receiver, i.e., *Ciwas* and *Pisuy* respectively, is the evaluated target. In (9.4c), the *-an* form is not allowed in the *blaq* construction; instead, it either appears as a nominalized form, as in (9.4c') or is the main verb in an imperative construction, as in (9.4c''). In (9.4d), the content NP *zyaw qasa'* 'that thing' is an evaluated target in the *zihung* construction and the *s-* form of *kal* 'discuss; talk about' is employed. As described in (9.4e) and (9.4e'), the Ground entity *Ciwas* is the subject of the *-un* form of *kal* 'discuss; talk about' in the realis and the irrealis transitive event respectively. In (9.4f), the Figure entity *zyaw qasa'* 'that thing' is the subject of the *s-* form of *kal* 'discuss; talk about', and in (9.4f'), the Figure entity *zyaw qasa'* 'that thing' is the highlighted in an irrealis event encoded by the reduplicated form of the verb *kal* 'discuss; talk about'. In (9.4g), the beneficiary argument *Yumin* is the subject of an applicative *s-* construction.

We now summarize the preceding discussions on (9.4) below:

Table 9.3: The interaction of concepts, undergoers, case-making, and four construction types for *s-/-un* verb type: [Undergoers as Figures in *Reciprocation* schema]

	Concept	EIC & case marking	*blaq* construction	Plain UV construction (reality status)	Applicative UV construction (reality status)
I	**Figure**^{Ground} → Under-goer → Loc(2) *sa* NP (or i' NP)		*-un* →	*-un* (Realis)	---
II	**Figure** → Under-goer → Loc(2) *sa* NP		*s-* →	*s-* (Realis)	---
II	Figure' = Benefactee	---	---	---	---	*s-* (3) →

In Table 9.3, (I) means that the Figure^{Ground} (i.e., the self-referencing Figure) is found as an intrinsic undergoer of the verb *kal* 'discuss; talk' under the *s-/-un* verb type, since it appears as a Loc(2)-marked argument in an EIC. The undergoer occurs as the subject in the *blaq* and the plain UV construction, in which the *-un* form of the verb is employed. (II) is concerned with the morphosyntactic realization of the other intrinsic undergoer. The undergoer is conceptualized as Figure. In an EIC clause structure, it is also Loc(2) *sa*-marked, and in the *blaq* construction and a plain UV construction, it is the subject of the *s-* form of the verb in question. (III) is to show how a benefactee participant is realized morphosyntactically. The participant is conceptualized as another Figure; but since it is not required by semantics of the verb, it is prohibited from occurring in the *blaq* construction and any plain UV construction; instead, it only occurs in an applicative construction.

Table 9.4 is a simplified version of Table 9.3:

Table 9.4: A syntactico-semantic template for the relationship between verbs in *s-/-an* composite verb type and their (non-)intrinsic undergoer arguments

Non-actor clause type	*blaq* construction	Plain UV construction	Case marking in EIC	As intrinsic undergoer (Concept)
-an	---	---	---	---
-un	●———————●		*sa* or *i'*	Yes (Figure^Ground)
s-	●———————●		*sa*	Yes (Figure)

As clearly seen from Table 9.4, the *-an* form of the verb *kal* 'discuss; talk about' has no relation to the encoding of its undergoer arguments. On the contrary, its other two UV forms are used to encode two different intrinsic undergoers respectively; that is, the *-un* form is for the Figure^Ground argument, while the *s-* form is for the Figure argument.

(9.5) summarizes the preceding discussions:

(9.5) Conceptual and morphosyntactic representations for events encoded by verbs in *s-/-un* composite verb type

In events encoded by the verb *kal* 'discuss; talk about', the Actor (i.e., topic initiator) communicates with another participant via content conveyed between them. In terms of Talmy's framework, the undergoer that is 'conveyed' is conceptualized as the Figure, and the one receiving the content is conceptualized as the Figure^Ground. Morphosyntactically, the Figure and the Figure^Ground are respectively highlighted in a *s-* and an *-un* clause. Taking the spatial deployment, conceptualization, and the morphosyntactic realization of the undergoer into account, a new verb type is distinguished, *s-/-un* composite verb type: [Undergoers as Figures in *Reciprocation* schema].

With regard to morphosyntactic representation, the two undergoers are Loc(2)-marked in an EIC clause. When they are expressed in a realis transitive event, they are respectively highlighted in constructions with the *s-* form and the *–un* form

of the verb. When they appear in an irrealis transitive event, a *Ca*-form and the *-un* form are then used respectively.

9.4 Concluding remarks on two composite classes

In this chapter, I have discussed two types of verb composite class, the *s-/-an* and the *s-/-un* composite type. Verbs in the two types are root ditransitive verbs, namely, their two undergoers are obligatorily required by the semantics of the verbs' base. These observations are summarized below:

Table 9.5: A summary of two types of verb composite class

Verb type	Verb example(s)	The conceptual manifestation of intrinsic undergoer subject and its occurring clause structure		Applicativized undergoer subject
		Undergoer 1	Undergoer 2	
s-/-an composite verb type: [Undergoers as Figure and Ground in *Conveyance* schema]	*biq* 'give', *cbaq* 'teach', *paqut* 'ask'	Figure in *s-*clause structure	Ground in *-an* clause structure	Beneficiary argument in applicative *s-*clause structure
s-/-un composite verb type: [Undergoers as Figures in *Reciprocation* schema]	*kal* 'discuss; talk'	Figure in *s-*clause structure	Figure^{Ground} in *-un* clause structure	Beneficiary argument in applicative *s-*clause structure

A notable point from Table 9.5 is that, for the verbs in these two types, there is no instrument applicative construction employed to encode an instrument subject. This point has also been made for the *s-* class in Chapter 8.

CHAPTER 10
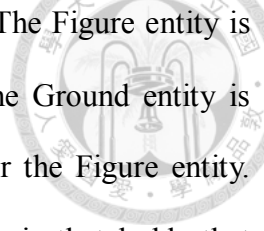
CONCLUSION

10.1 Recapitulation

In this study, I have attempted to provide a framework for classifying the verbs in Squliq Atayal by exploring various types of intricate relationships between a verb and its core undergoer argument(s). The two points indicated in Chapter 2 have motivated me to undertake the present study. The first point is that not all three UV forms of a verb, i.e., *-un*, *-an*, and *s-*, fill their slots in a so-called full-fledged four-way voice paradigm. Secondly, different verb types prefer different UV forms to code subjects. Filling in any UV form slot is conditioned by meeting one or two of the three functions: (i) the encoding of an inherent relationship between a verb's intrinsic undergoer and its default UV form, (ii) the encoding of an intrinsic undergoer for signaling the reality distinction or for exhibiting subtle semantic differences, and (iii) the encoding of an applicative undergoer. Of the three functions, (ii) is far more complex, since all possible conditions are not identified until a decision is made on (i) and (iii). That is, the verb classification tackled in this present study is mainly based on the interrelated results from (i) and (iii), which is an UV-based classification.

One primary task for the present study then has been to understand how an intrinsic undergoer of a verb is realized in an event, *esp*. how the undergoer participant or entity interacts with other participants in the event. We take the notion of Frame proposed by Fillmore (1976) as a basis for a careful examination of the event structure specified by the verb. Since an event can be conceptualized as involving two objects, Figure and Ground, relating to each other in space (Talmy 2000 (I):312), the undergoer participant can be symbolized or conceptualized as either the Figure or the Ground

entity, based on its interaction with other participants in the event. The Figure entity is movable, moved, located or undergoes an essential change, and the Ground entity is larger in size or unbounded and mostly static and serves to anchor the Figure entity. Basic to this verb classification framework is the embodiment thesis that holds that "Language system provides meanings based on concepts derived from embodiment" (Evans and Green 2006:176). Chapter 4 fleshes out in some detail the nature of embodiment.

The other primary task has been to identify the default UV form used to specify the intrinsic undergoer. Before this is done, however, we need to address the question of determining which argument in a clause refers to the undergoer, since it is often the case that more than one undergoer occurs in a single clause. This question can be solved from two perspectives. The first is verbal semantics. In addition to an actor and an intrinsic undergoer, other undergoer participants are designed for assisting the actor in affecting the intrinsic undergoer. They convey information about instrument, manner, time, or location of an event, and so on, namely, information about peripheral participants in events or clausal adjuncts. As pointed out in Chapter 3, the base of a verb may directly provide any of these types of information. The second perspective is morphosyntax. Peripheral participants are encoded as either a Gen 2 or a Loc 1 argument in an EIC. In other words, the UV form used to encode an NP that belongs to any of these categories is then not a default form, but a non-default form. Detailed discussions about the second task were provided in Chapters 3 through 5.

We have shown in Chapters 6 through 9 that the saliency of an intrinsic undergoer in a scene varies from event to event or from verb to verb. That is, a conceptualized undergoer may be either the Figure or the Ground entity, and the morphosyntax of the language may then specify the salience of the Figure or the Ground in ways shown in
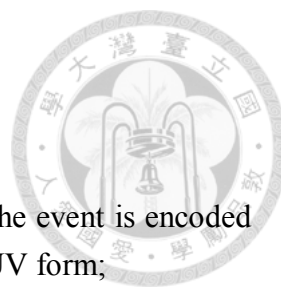
(10.1):

(10.1) a. The salience of the Figure entity is manifested when the event is encoded by the verb with the *–un* or the *s-* form as its default UV form;

b. The salience of the Ground entity is manifested when the event is encoded by the verb with the *–an* form as its default UV form.

Furthermore, from the perspective of conceptualization of undergoer subjects, verbs in Squliq Atayal are classified into five classes, shown in Table 10.1:

Table 10.1: Five classes of verbs in Squliq Atayal

	Verb Class	Subject conceptualized as
Class 1	*-an* verb class	Ground
Class 2	*-un* verb class	Figure
Class 3	*s-* verb class	Transferred Figure
Class 4	*s-/-an* composite verb class	Figure and Ground
Class 5	*s-/-un* composite verb class	Figure and Figure

Note that the Figure in the *s-* verb class is restricted to a transferred entity, while that in the *-un* class refers to any other types of Figure.

Each class has its own specific voice system, as shown in Tables 10.2 through 10.6 below. The question marks in the following seven tables mean that, as mentioned earlier, the second function of a UV form awaits further investigation; as a result, I have temporally assigned a question mark to these slots.

Table 10.2a: A voice system for verbs in the *-un* class in Squliq Atayal (1) (Notes: for verbs encoding *Transformation*, *Taking*, *Gathering*, and *Causative motion* eventual schema)

AV	UV				
m- or *–m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	**Default form** (used in neutral context)	✓	✗	✗
		Non-default form (used in limited context)	✓	✓	✗ (or ?)
	Applicative undergoer	Used in neutral context	✗	✓	✓ (Beneficiary and instrument)

Table 10.2b: A voice system for verbs in the *-un* class in Squliq Atayal (2) (Notes: for verbs encoding *Self-moving*, *Cognition*, *Stimulus*, and *Triggering* schemas)

AV	UV				
m- or *–m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	**Default form** (used in neutral context)	✓	✗	✗
		Non-default form (used in limited context)	✓	✓	✗ (or ?)
	Applicative undergoer	Used in neutral context	✗	✓	✓ (Beneficiary) ✗ (Instrument)

Table 10.3a: A voice system in the *-an* class in Squliq Atayal (1) (Note: for verbs encoding *Placement (I)*, *Removal*, *Indivisibility,* and *Placement (II)* schemas)

AV	UV				
m- or *–m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	**Default form** (used in neutral context)	✘	✓	✘
		Non-default form (used in limited context)	✓	✘ (or ?)	✘ (or ?)
	Applicative undergoer	Used in neutral context	✘	✓	✓ (Beneficiary and Instrument)

Table 10.3b: A voice system for verbs in the *-an* class in Squliq Atayal (2) (Notes: A voice system for verbs encoding *Possession*, *Mediation*, and *Fixedness* schemas)

AV	UV				
m- or *–m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	**Default form** (used in neutral context)	✘	✓	✘
		Non-default form (used in limited context)	✓	✘ (or ?)	✘ (or ?)
	Applicative undergoer	Used in neutral context	✘	✓	✓ (Beneficiary) / ✘ (Instrument)

Table 10.4: A voice system for verbs in the *s-* class in Squliq Atayal

AV	UV				
m- or *–m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	Default form (used in neutral context)	✗	✗	✓
		Non-default form (used in limited context)	✗ (or ?)	✗ (or ?)	✗ (or ?)
	Applicative undergoer	Used in neutral context	✗	✓	✓ (Beneficiary) / ✗ (Instrument)

Table 10.5: A voice system for verbs in the *s-/-an* composite class in Squliq Atayal

AV	UV				
m- or *–m-* or *ø*			*-un*	*-an*	*s-*
✓	**Intrinsic undergoer**	Default form (used in neutral context)	✗	✓	✓
		Non-default form (used in limited context)	✓	✗ (or ?)	✗ (or ?)
	Applicative undergoer	Used in neutral context	✗	✓	✓ (Beneficiary) / ✗ (Instrument)

Table 10.6: A voice system for verbs in the *s-/-un* composite class in Squliq Atayal

AV	UV		-un	-an	s-
m- or *-m-* or *ø*			-un	-an	s-
✓	**Intrinsic undergoer**	Default form (used in neutral context)	✓	✗	✓
		Non-default form (used in limited context)	✓	✗ (or ?)	✗ (or ?)
	Applicative undergoer	Used in neutral context	✗	✓	✓ (Beneficiary)
					✗ (Instrument)

Tables 10.2 through 10.6 provide us a systematic understanding of the patterning of voice forms of the verbs in Squliq Atayal, and they also show clearly that not every verb in Squliq Atayal exhibits a full-fledged 'paradigm' given in Table 2.1 in Chapter 2. Instead, the availability of the voice system for a verb is lexically specific.

For each class, based on the structure of event schematization, there are at least one, or at most eight verb types. More precisely, verb types are determined by spatial configuration of participants in events, as shown in Tables 10.7 through 10.11:

Table 10.7: Seven types of *-an* verbs in Squliq Atayal

Type	Type read as	Example 1	Example 2
-an verb type (1)	Undergoer as Ground in *Placement* (I) schema	*tuba'* 'poison (fish)'	*tmami'* 'salten (meat)'
-an verb type (2)	Undergoer as Ground in *Removal* schema	*bahuq* 'wash (clothes)'	*salit* 'weed'
-an verb type (3)	Undergoer as Ground in *Indivisibility* schema	*gyax* 'open (a door)'	*qlu'* 'close (a door)'
-an verb type (4)	Undergoer as Ground in *Transportation* schema	*ksyuw* 'to borrow'	*psyuw* 'to return'
-an verb type (5)	Undergoer as Ground in *Mediation* schema	*gluw* 'follow; take (a bus)'	*skluw* 'draw; bow'
-an verb type (6)	Undergoer as Ground in *Fixedness* schema	*shga'* 'overtake'	*pgiay* 'escape from'
-an verb type (7)	Undergoer as Ground in *Placement* (Ⅱ) schema	*kita'* 'see'	*talam* 'taste'

Table 10.8: Eight types of *-un* verbs in Squliq Atayal

Type	Type read as	Example 1	Example 2
-un verb type (1)	Undergoer as Figure in *Transformation* schema	*lom* 'burn'	*pluk* 'burst out'
-un verb type (2)	Undergoer as Figure in *Taking* schema]	*beng* 'hold'	*'agal* 'take'
-un verb type (3)	Undergoer as Figure in *Gathering* schema	*imaw* 'mix up'	*'ubuy* 'link; join'
-un verb type (4)	Undergoer as Figure in *Causative motion* schema	*pakux* 'turn over'	*huluy* 'pull'
-un verb type (5)	Undergoer as Figure in *Self-moving* schema	*naga'* 'wait'	*hbyaw* 'chase'
-un verb type (6)	Undergoer as Figure in *Cognition* schema	*baq* 'know'	*spi'* 'dream'
-un verb type (7)	Undergoer as Figure in *Stimulus* schema	*nkux* 'startle'	*qas* 'happy'
-un verb type (8)	Undergoer as Figure in *Triggering* schema	*gno* 'joke'	*hmut* 'at will'

Table 10.9: Three types of *s-* verbs in Squliq Atayal

Type	Type read as	Example 1	Example 2
s- verb type (1)	Undergoer as Figure in *Pushing* schema	*piyok* 'rent'	*tbaziy* 'sell'
s- verb type (2)	Undergoer as Figure in *Generation* schema	*pqwas* 'sing'	*quzit* 'rotate; drive a car'
s- verb type (3)	Undergoer as Figure in *Cause* schema	*galu'* 'sympathize'	*laqux* 'win over'

Table 10.10: One type of *s-/-an* verbs in Squliq Atayal

Type	Type read as	Example 1	Example 2
s-/-an composite verb type	Undergoers as Figure and Ground in *Conveyance* schema	*biq* 'give'	*paqut* 'ask'

Table 10.11: One type of *s-/-un* verbs in Squliq Atayal

Type	Type read as	Example 1	Example 2
s-/-an composite verb type	Undergoers as Figure and Ground in *Conveyance* schema	*kayal* 'talk about'	*syuk* 'respond; answer, revenge'

Verbs that fall under one or the other verb type are viewed as instantiating one specific schema. Verbs that are classified in this way include not only dynamic verbs but also stative verbs, such as emotion verbs (e.g., 'happy' and 'sad'), verbs denoting attributes ('lazy' and 'at will'), and verbs denoting states (e.g., 'alive' and 'bright'), and so on. Schematization of the event encoded by a dynamic verb occurs on the basis of interaction with the physical world, and thus a tight link between any dynamic verbs and their schematization is natural. For many verbs, schematization is licensed by a metaphorical projection. That is, schema and metaphor are two types of cognitive mechanisms for us to understand the world and the nature of language. We hope to have

demonstrated that the typing of verbs in Squliq Atayal can be shown to be largely grounded in embodied experiences that underpin the various schema types identified in the tables above. Appendix II is a Squliq text to which the analytic concepts and categories of the present framework is applied.
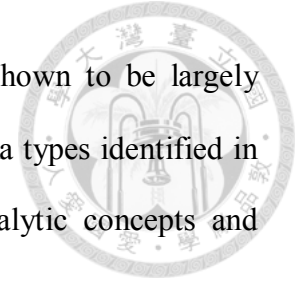
10.2 Further studies

The present study is intended to be a first tentative step toward unraveling the multiple factors that determine verb classification, based on event schematization and morphosyntactic evidence. Looking toward the future, a few issues still await further research. First, there is obviously a need to examine a larger sample of verbs than has been possible here so that further event schemas and thus verb types can be identified.

The second issue that warrants further investigation is much more complex. Now it can be seen that -*an*, -*un*, and *s*- can be understood as abstract symbolic structures for representing affected, spatio-conceptual entities in both physical and mental worlds. The voice form -*an* is an abstract structure in which the subject stands for a Ground entity used by the actor or the speaker for anchoring a Figure object in an event frame; the -*un* voice form, on the other hand, is a marker used to symbolize a self-referencing Figure object, and *s*- is a symbol of a Figure object conveyed to a respective Ground object in space or mind. In brief, the three markers are used in neutral transitive event. Additionally, the three markers also occur in other non-neutral conditions. For the –*un* marker, it is an alternative form of the verb under the –*an* verb class and is used to encode an irrealis event where its intrinsic undergoer is in the same thematic category as the one in a neutral or realis event. Similarly, for the -*an* marker, it can be taken as an alternative form of the verb falling under the -*un* verb class and is also used to specify the verb's intrinsic undergoer in a neutral realis event. Moreover, for the marker *s*-, it is

330

commonly used in an applicative construction to encode an instrument or a beneficiary subject. Fig. 10.1 displays all possible uses for these three markers.
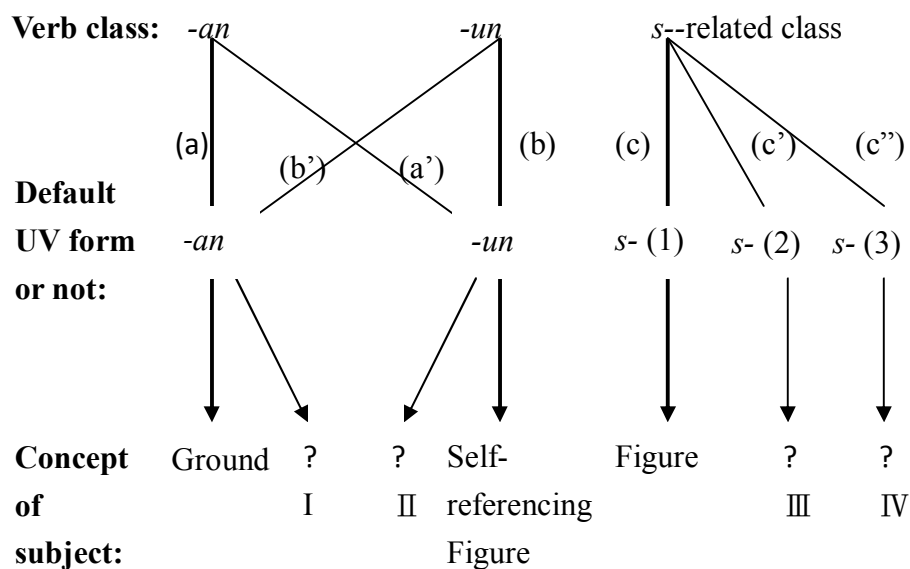

Fig. 10.1: All possible links connecting voice form and subject for verbs in three UV classes

A description of these links is given in Table 10.12:

Table 10.12: A description of all possible uses for the three voice markers

Line	Description
Line (a)	Is meant to show a link between a verb in the *-an* verb class and its **default** UV form, i.e., *-an*, and the default undergoer subject is assigned Ground.
Line (a')	Is meant to show a link between a verb in the *-an* verb class and its **non-default** UV, *-un* form, which is used to encode **an irrealis** event. However, whether the subject of the non-default functions as Figure or Ground remains to be researched.
Line (b)	Is meant to show a link between a verb in the *-un* verb class and its **default** UV form, i.e., *-un*, and the default undergoer subject is assigned self-referencing Figure.
Line (b')	Is meant to show a link between a verb in the *-un* verb class and its **non-default** UV, *-un* form, which is used to encode **a realis** event. However, whether the subject of the non-default functions as Figure or Ground remains to be researched.
Line (c)	Is meant to show a link between a verb's *s-* alternative form in the *s-*, the *s-/-an* composite, or the *s-/-un* composite verb class and its **default** UV form or one of its two default UV forms, i.e., *s-*, and the default undergoer subject is assigned Figure.
Line (c')	Is meant to show a link between a verb in the *s-*, the *s-/-an* composite, or the *s-/-un* composite verb class and its **applicative instrument** UV, *s-* form, which is used to specify an **instrument** subject. However, whether the subject of the non-default functions as Figure or Ground remains to be researched.
Line (c")	Is meant to show a link between a verb in the *s-*, the *s-/-an* composite, or the *s-/-un* composite verb class and its **applicative instrument** UV, *s-* form, which is used to specify a beneficial subject. However, whether the subject of the non-default functions as Figure or Ground remains to be researched.

In Fig. 10.1, there are four question marks, Ⅰ, Ⅱ, Ⅲ, and Ⅳ, which stand for four different, but interrelated sub-issues awaiting further research.

As emphasized a number of times before, the present study on verb classification is UV-based, unlike the earlier studies on verb classification like Tseng (1997) and L. Huang (2000), which were based on properties of verbs in actor voice (AV). It may be worth investigating in some detail the virtue of a classification scene that synthesizes
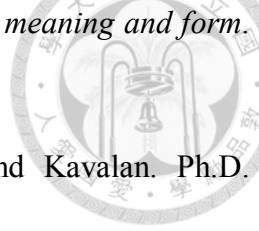
the results of both UV- and AV-based approach.

Finally, using the framework adopted in this present study to examine verbs in other Formosan language for comparative purposes seems to me to be also a fruitful line of inquiry. The three UV markers, *-an*, *-un*, and *s-*, including their variants like *–ay*, *-aw*, and *-anay* in Puyuma and *-i*, *-a*, and *-neni* in Tsou, also occur in most Formosan languages. It can be conjectured that, for these languages, the application of the present framework should work. In contrast, for the languages with the focus/voice attrition phenomenon like Saisiyat (M. M. Yeh 2003) and Kavalan (Hsieh 2007) or for the languages without the three markers *-an*, *-un*, and *s-* like Mantauran Rukai (cf. Zeitoun 2007)[33], the applicability of the framework may need rethinking. A comparison among Formosan languages will help us grasp some meaningful commonalities as well as differences about the ways the language users in these languages construe events in their daily life and how they perceive their world.

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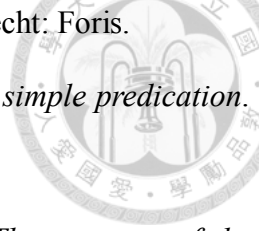
[33] As indicated in Zeitoun (2007:2; 143), Mantauran Rukai (and other Rukai dialects as well) exhibits an active/passive voice dichotomy not found in other Formosan languages. The dichotomy is morphologically marked by the contrast between *o-* for dynamic verbs (e.g., *o-alopo* 'hunt' and *o-aha'a* 'cook') and *ma-* for stative verbs (e.g., *ma-rilai* 'slim' and *ma-dhalame* 'like; love') in the active voice and *'i-* in the passive voice (e.g., e.g., *'i-aha'a* 'cook' and *'i-ka-dhalame* 'be liked; be loved').
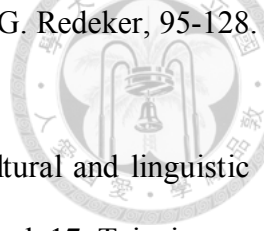
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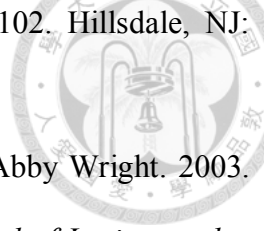
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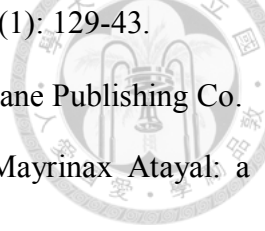
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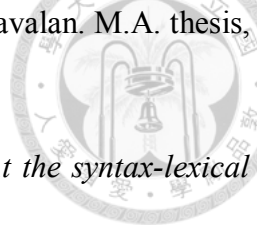
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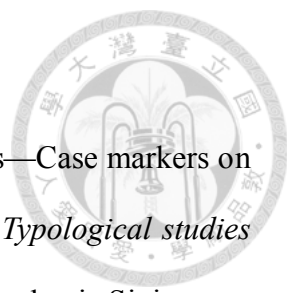
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APPENDIX I

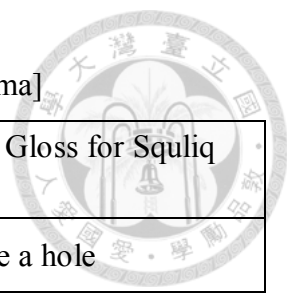**Part 1: Verb instances in seven -*an* verb types**

Table A1: -*an* verb type (1): [Undergoer as Ground in *Placement*（Ⅰ）schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
betaq	To stab	*bhul*	To tie
bihiy	To beat	*biru'*	To write
cicis	To sprinkle water	*ghap*	To sow
kalu'	To rake	*kzyup*	To insert
lpus	To sprinkle	*patas*	To tattoo
phaga'	To pile up	*phelaw*	To cover
pktunux	To hit	*pkyamil*	To wear shoes
plukus	To have sb. wear clothes	*pqsya'*	To water
puzit	To drill	*qarop*	To detain
qamas	To dry for preserving vegetables	*qatap*	To trim with scissors
qiway	To shield; to curtain	*qryang*	To wall in; to fence in
qibuw	To plow	*qlqul*	To drill
scimu'	To have salt added to	*spung*	To evaluate; to measure
sqes	To put a limit	*s'un*	To fill in
taruq	To dig up	*tabus*	To pound rice
tamul	To make wine	*tapang*	To mend; to patch
tmami'	To pickle	*tpaq*	To shore
tapaq	To flat ; to clap; to beat with hand	*tqalang*	To found a village
tqep	To clip	*tuba'*	To poison
tucing	To hammer	*tuling*	To point
tunux	To pillow	*t'uraw*	To dirty
umuk	To cover; to put a lid on	*usa'*	To go
wah	To come	*ziup*	To blow
'bul	To soak in water; to dive; to bury	*'buw*	To soap
'i'yut	To extinguish		

Table A2: *-an* verb type (2): [Undergoer as Ground in *Removal* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
bahuq	To wash clothes	*bling*	To make a hole
gsyup	To clean the field after burning; to remove trash	*kyut*	To pluck
grgul	To rub	*gulaq*	To peel off
hep	To lick	*hgut*	To decrease
kahat	To scrape	*kloh*	To reap; to harvest
kugus	To shave	*kut*	To cut
kzyak	To fire-dry	*lahing*	To thin out; to weed the paddy
lpus	shell	*pcyaq*	To clip
qapoh	To dry	*pnayang*	To bring wasteland under cultivation
ksus	To sauté (with eatable oil)	*purung*	To amputate
pt'alax	To cause to separate from	*pska'*	To halve
pulas	To peel	*qihuy*	To dig
qlih	To subside; to run out	*qwax*	To clean bowl
salit	To hew	*sapwah*	To sweep floor
sgaliq	To tear	*som*	To wipe off
taruq	To dig out	*(s)qlih*	To subside
wayaw	To choice; to select		

Table A3: *-an* verb type (3): [Ground as undergoer in *Indivisibility* schema]

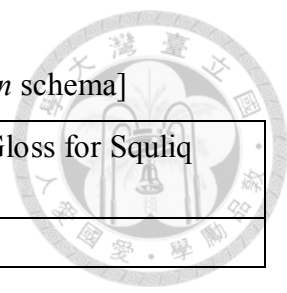| Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
behuw	To lock	*geh*	To open
qlu'	To close	*skluw*	To draw; to extend
sket	To tighten		

Table A4: *-an* verb type (4): [Undergoer as Ground[Figure] in *Possession* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
ksyuw	To borrow	*psyuw*	'return'

Table A5: *-an* verb type (5): [Ground as undergoer in *Mediation* schema]

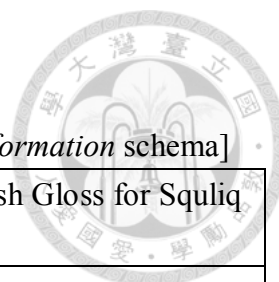| Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
gluw	To follow; to take (a bus)	*hwak*	To support
palah	To warm oneself on the fire	*tama'*	To take a seat
(t)hgiru'	to circulate; to swirl		

Table A6: *-an* verb type (6): [Ground as undergoer in *Fixedness* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
karaw	To climb	*kbabaw*	To cross over; to go ahead
klkax	To kick	*krkias*	To ascend; to crossover
lama'	To be at first	*pengri'*	To stride over
pgiay	To escape from	*sgagay*	To separate from; to bid farewell
shga'	To overtake	*uluw*	To find out; to discover
zyungi'	To forget		

Table A7: *-an* verb type (7): [Ground as undergoer in *Placement* (II) schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
cisal	To chat with	*khzyaq*	To catch cold
kita'	To see	*kiyaya'*	To investigate; to scout
ksyus	To curse	*k'uy*	To be tired
hili'	To falsely incriminate	*hway*	To thank; to repay kindness
gsasaw	To shade	*lahang*	To take care of
qilang	To be lazy	*mzimu'*	To butter up
pqbaq	To learn	*p'abas*	To exaggerate
qayat	To raise; to breed	*pung*	To hear
sok	To smell	*spung*	To evaluate
sblaq	To like	*syaqih*	To dislike
swal	To promise	*tquli'*	To be grey-headed
trahu'	To praise	*stama'*	To rely on
talam	To taste	*thzigal*	To tease
tlubuw	To play the Jew's harp	*psyax*	To light up
uyay	Be hungry	*pugi'*	To dry in the sun
iya'	Be alike	*yangay*	To watch
zimu'	To butter up		

Part 2: Verb instances in eight *-un* verb types

Table B1: Verbs in *-un* verb type (1): [Undergoer as Figure in *Transformation* schema]

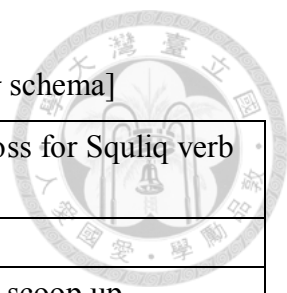| Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
bka'	To explode	*bugah*	To loosen
buqi	To unravel	*cira'*	To spindle
hlah	To shake off; brush off	*kat*	To bite
kalay	To make	*hlngaw*	To boil water
heriq	To destroy; to demolish	*k'yak*	To mash
gegay	To break or tear into small pieces	*hubing*	To slice
hwax	To disassemble; to depart	*kalay*	To make
lhmiq	To thin	*los*	To excavate
nahu'	To make a fire	*nbuw*	To drink
pahuw	To break; to fold	*pluk*	To explode; to crush
ps'ut	Cause to be affected in an enclosed space	*qataq*	To eat raw
p'uraw	To dirty	*psgagay*	To branch off; to part
qaniq	To eat	*psngya'*	To ventilate; to crack
qrqul	To boil	*qmi'*	To hold in the mouth
sgaliq	To tear	*sbuci'*	To split up; to divide
stmaq	To rot	*shu'*	To pound rice
tabuk	To beat	*sngya'*	To crack
tatah	To roast sweet potato; to bake	*sktux*	To have sth. salted
thwah	To make sth. collapse	*suling*	To broil
tinun	To weave	*tahuq*	To cook
(t)lom	To burn	*tayak*	To cook; to do housework
tutu'	To chop	*tgabaw*	To split
tzyaw	To work	*tumaw*	To make round
'ngi'	To break into piece		

Table B2: Verbs in *-un* verb type (2): [Undergoer as Figure in *Taking* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
baziy	To buy	*beng*	To hold
ciriq	To fish with hook; to catch	*haw*	To ladle; to scoop up
hbyat	To uproot	*hukuy*	To hold and take into somewhere
kyap	To catch	*leliq*	To raise; to lift up
lqing	To hide something	*phtuw*	To cause out
psru'	To sustain; to prop up; to hold	*qap*	To draw out
sabu'	To wrap; to take sth. wrapped	*saki'*	To serve food
sku'	To store	*tkura'*	To pack
thawak	To wear skirt	*'agal*	To take
'aras	To take away		

Table B3: Verbs in *-un* verb type (3): [Undergoer as Figure in *Gathering* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
bkuw	To line up	*(p)stnaq*	To meet
stnaq	To hand over and to take over	*ubuy*	To join; to link
'imaw	To mix up	*squn*	To unite
tnaq	Be identical be the same		

Table B4: Verbs in *-un* verb type (4): [Undergoer as Figure in *Causative motion* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
huluy	To pull	*nos*	To knock over; to run into
pakux (B)	To turn over	*piray*	To cause to roll
pbinah	To cause to return	*qlyu'*	To cause to float
posa'	To let go	*pqinah*	To make sb. run
pwah	To cause to come	*pzyuy*	To move
sbah	To change position	*turuy*	To roll; to cause to roll

Table B5: Verbs in *-un* verb type (5): [Undergoer as Figure in *Self-moving motion* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
hbyaw	To chase	*hinas*	To exceed
hkani'	To look for	*naga'*	To wait for
qalup	To chase	*takuy*	To (make) fall
tepah	To invite	*sosaw*	To chase away

Table B6: Verbs in *-un* verb type (6): [Undergoer as Figure in *Cognition* schema]

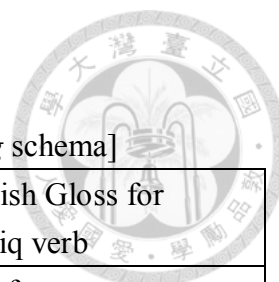| Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
baq	To know; be able to	*lnglung*	To think of
spi'	To dream of	*snhi'*	To believe
s'inu'	To miss	*tqbaq*	To be conscious of

Table B7: Verbs in *-un* verb type (7): [Undergoer as Figure in *Stimulus* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
hngyas	bored; loathe	*nkux*	To startle
ngungu'	To be afraid	*pqas*	To be joyful over
r'us	disgust	*soya'*	To adore
s'abas	To envy	*tqox*	Be hurry
t'uqu'	To sulk; be cross		

Table B8: Verbs in *-un* verb type (8): [Undergoer as Figure in *Triggering* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
gno'	To joke	*cbaq*	To teach
hapas	To make fun of	*lawa'*	To await
lux	To insist on; do against propriety; foolish	*phaw*	To punish
phut	To reinforce; to press	*sayu'*	To scold
s'ang	To be noisy; to bother	*thazi'*	To tease
thbku'	To dote in order to achieve advantages	*t'uqu'*	To annoy
zimu	To console	*'abas*	To go to the trouble of …; risk
'syang	To bother; to be noisy		

Part 3: Verb instances in three *s-* verb types

Table C1: Verbs in *s-* verb type (1): [Undergoer as Figure in *Pushing* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
gihu'	To revolve	*htuy*	To refuse
lpus	scatter	*luhuw*	To string
panga'	To carry something on back (to move to somewhere)	*phangal*	To shoulder to move
piyok	To rent out something	*pzyu'*	To move
rahaw	To incline; to slant	*ruruw*	To push (to move)
tbaziy	To sell	*tukun*	To pour; to fall; to shake out
turuy	To push to roll	*zyuy*	To move
'alax	To depart; to leave behind		

Table C2: Verbs in *s-* verb type (2): [Undergoer as Figure in *Generation* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
pilaw	To light a torch	*pqwas*	To sing
puting	To ignite fire	*plawa'*	To call
quzit	To rotate	*tmumu'*	To tie a knot
utu'	To pile up; to arrange objects into a pile		

Table C3: Verbs in *s-* verb type (3): [Undergoer as Figure in *Cause* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
galu'	To sympathize	*tatux tunux*	To respect to
tliqun	Be crazy for	*ksayux*	ashamed of
laqux	To win over		

Part 4: Verb instances in two composite verb types

Table D1: Verbs in *s- & -an* verb type: [Undergoers as Figure and Ground in *Conveyance* schema]

Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
biq	To give	*buling*	To throw
cbaq	To teach; to let know	*luhuw*	To string; to thread a needle
paqut	To ask	*pqzyuw*	To transmit
qapax	To paste up	*qasuw*	To distribute; to divide
quzi'	To tie something to somewhere	*si'*	To put
twang	To increase		

Table D2: Verbs in *s- & -un* verb type: [Undergoers as Figures in *Reciprocation* schema]

| Squliq Verb	English Gloss for Squliq verb	Squliq Verb	English Gloss for Squliq verb
kal	To tell	*syuk*	To act in turn; to answer; to retaliate

APPENDIX II

Part 1: Text A

Kbalay tmami' syam
'Recipe for making pickled pork'

(1) **glg-an** na' s<m>ka' hi' ru s<m>ka' syam qu' t-mmy-un=su. (2) **hbing-un**=su qutux qutux k<n>ut-an ru, (3) **'bg-an** na' cimu' qu' t-mmy-un=su. (4) s-ktux cikay! (5) ini' tehuk cimu'=nya' la, mutux m-stmaq qu' t-mmy-an. (6) ini' **baq-i** maniq la ; baq s-knux. (7) nanu si ga, cingay cikay qu' cimu'. (8) **s-tmw-an** qu' syam ga, ini' p-stmaq qu' c<in>mmy-an=su ru; (9) **suq-un**=su p-gluw '<m>imaw qu' cimu' ru syam. (10) **sbu-n** youzihdai. (11) ini' ga', **sk-un** sa ska' kluban. (12) **in-liq-un** '<m>umuk ru; (13) **sku-n** pingshiang ru cyugan bingi' lga, **al-un** ru **qwax-an** qsya' qu' s<in>tw-an syam qasa. (14) **in-liq-un** q<m>wax qu' s<in>tmw-an ka syam qasa. (15) ru **p-os-un** qu' qsya', ru **qpuh-an** ru, **s-phapuy** mami' ; (16) si' ga, m-qapuh qu' p<in>phapuy=su mami' ; ini' **stmaq-i** phapuy; (17) bali' nanu ga, m-stmaq qu' p<in>hapuy=su mami lga, mutux m-stmaq c<in>mmy-an=su. (18) ru m-huqil qu' mami' lga, **s-tukun** sa hupa' na' semyanki', ini' ga, q<in>wax-an na' bluku'; (19) ru **gyax-an** qu' mami'. (20) **bsaw-an** la. (21) **lg-un**=su ru; (22) tehuk sa tltu' kwara' qu' mami' lga, **lps-an** cimu' qu' mami'. (23) **in-liq-un** '<m>imaw. (24) **tlam-i** cikay qu' mami ; si ga k<m>tux. (25) **qsya'-an** cikay tltu' ka h<in>lngaw qsya' ru, (26) m-huzyaq cikay qu' mami' lga, **s-tukun** sa ska' mami' qu' syam ru, (27) **in-liq-un** '<m>imaw kin na' mami' la. (28) **qop-i** cikay qu' mami' ru ; tlam-i maniq. (29) k<m>tux cikay niq-un qu' mami' lga, nanu **s-tukun** sa ska' mami' qu' syam; (30) **tkr-on** sa ska' na' mwayaw ru, ini' ga, yuyut; (31) **gyut-un gyut-un** tkura' lru, (32) sthahay qu' mami' qasa lga, **s-'umuk** sa babaw na' syam sa ska' na mwayaw ru, (33) **in-liq-un** '<m>umuk na' youzhihtai, in-liq-un pskut mhul; (34) ini' **psngya-i**; (35) maha **'bag-an** ga, tehuk sa pusal msyaw bingi' lga, **baq-un** maniq la. (36) iy kmisan lga, si ga h<m>inas qutux byacing msyaw lga, **baq-un** maniq la. (37) bali' nanu ga, kmisan hya' ga, hzyaq ; ini' k-helaw m-huqil qu' t-mmy-an ka syam qani.

Part 2: An analysis of the UV sentences in Text A
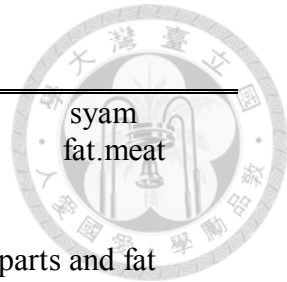
(1) glg-an   na'   s<m>ka'   hi'   ru   s<m>ka'   syam
     follow-an   GEN   <m>halve body   and   <m>halve   fat.meat
     qu'   t-mmy-un=su.
     NOM   Vzr-rice-un=2Sg.Gen
     '(The pork) you are going to pickle (must be the one) with lean parts and fat
     parts (in it). (Lit. Lean meat and fat meat follow (the pork) you are going to
     pickle.)'

<Analysis>	
Target UV verb	*glg-an* (<*gluw* 'follow')
Participants	1. *s<m>ka' hi' ru s<m>ka' syam* (as **Figure undergoer**) 2. *t-mmy-un=su* (as **Ground undergoer**)
A paraphrase of the *following* event	An actor exerts his/her force upon the Figure undergoer (i.e. lean meat and fat meat) to have it go with the Ground undergoer (i.e. the pork) in order to have the latter undergoer as a device for the purpose of affecting the former. (Note: A composite of lean meat and fat meat is what the speaker would expect for delicious pickled meat. By analogy, Ground can be realized as an access to Figure).
Schema	*Mediation*
Subject	*t-mmy-un=su* (as **Ground undergoer**)
Verb type	The *-an* verb type (5): [Undergoer as Ground in *Mediation* schema]

(2) hbing-un=su   qutux   k<n>ut-an   ru,
    slice-un=2Sg.Gen   one   <n>cut-an   and
    'You dice (pork).'

<Analysis>	
Target UV verb	*hbing-un* (< *hubing* 'slice; cut; dice')
Participants	1. *=su* (as **Actor**) 2. an omitted NP, i.e. *syam bzyok* 'pork' (as **Figure**)
A paraphrase of the *slicing* event	An actor exerts his/her force upon the Figure undergoer to have its form changed.
Schema	*Transformation*
Subject	an unspecified undergoer NP, i.e. *syam bzyok* 'pork' (as **Figure**)
Verb type	The *-un* verb type (1): [Undergoer as Figure in *Transformation* schema]

(3)'bg-an   na'   cimu'   qu'   t-mmy-un=su.
    soak-an   GEN   salt   NOM   Vzr-rice-un=2Sg.Gen
    'You soak salt into (the pork) you are going to pickle.'

<Analysis>	
Target UV verb	*'bg-an*

Participants	1. An unspecified actor, i.e. =*su* 'second person singular genitive pronoun' 2. *cimu'* (as **Figure undergoer**) 3. *t-mmy-un=su* (as **Ground undergoer**)
A paraphrase of the *soaking* event	An actor takes salt and puts it into meat.
Schema	*Placement*（Ⅰ）
Subject	*t-mmy-un=su* (as **Ground undergoer**)
Verb type	The –*an* verb type (1): [Undergoer as Ground in *Placement*（Ⅰ） schema]

(4) s-ktu   cikay!
    Vzr-salty   a.bit
    'Make it a bit salty! '

(5) ini'   tehuk   cimu'=nya'   la,   mutux   m-stmaq   qu'   t-mmy-an.
    Neg   arrive   salt=3Sg.Gen   FP   then   m-rot   NOM   Vzr-rice-an
    'If (you) don't (add) enough salt (to meat), the pickled (meat) will spoil. '

(6) ini'   baq-i   maniq   la ;   baq   s-knux.
    Neg   know-i   eat.m   FP   able   Vzr-stink
    '(People) have no idea how to eat it; (pork) can easily stink.'

<Analysis>	
Target UV verb	*baq-i* (< *baq* 'know')
Participants	1. an unspecified cognizer 2. an unspecified undergoer, i.e. pork (as **Figure undergoer**)
A paraphrase of the *knowing* event	Rotten meat may be analogous to a stimulus with a dynamic appearance, so that once activated, it enters into the consciousness of the cognizer; in the case here, spoiled meat causes him to lose any appetite for it.
Schema	*Cognition*
Subject	an unspecified undergoer, i.e. pork (as **Figure undergoer**)
Verb type	The –*un* verb type (6): [Undergoer as Figure in *Cognition* schema].

(7) nanu   si   ga,   cingay   cikay   qu'   cimu'.
    what   just   Top   many   a.bit   NOM   salt
    'Therefore, (you should) add more salt (to pork).'

(8) s-tmw-an   qu'   syam   ga,   ini'   p-stmaq   qu'
    Vzr-salt-an   NOM   fat.meat   Top   Neg   p-rot   Nom
    c<in>mmy-an=su   ru
    <in>rice-an=2Sg.Gen   and
    'If (You) add (enough) salt to pork, your pickled (pork) will not spoil.'

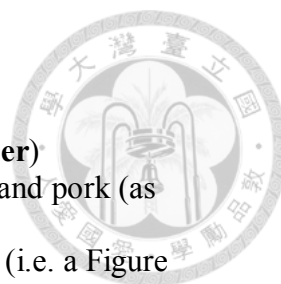| <Analysis>	
Target UV verb:	*s-tmw-an* (< *s-cimu'* '(add) salt (to)' < *cimu'* 'salt')
Participants:	1. an unspecified actor, i.e. *=su* 'second person singular genitive pronoun' 2. *syam* 'fat meat' or more precisely, some pork (**as Ground undergoer**) 3. salt, as information implied by the base of the verb *s-tmw-an*; as to *syam* 'fat meat', salt is **Figure undergoer**
A paraphrase of the *salting* event:	An actor takes some salt and puts it into pork.
Schema:	*Placement* (Ⅰ)
Subject:	*syam* 'fat meat'
Verb type:	The *–an* verb type (1): [Undergoer as Ground in *Placement* (Ⅰ) schema]

(9) suq-un=su   p-gluw   '<m>imaw   qu'   cimu'   ru   syam.
     finish-un=2Sg.Gen   Cau-follow   <m>mix   NOM   salt   and   fat.meat
     'When you finish mixing salt and fat meat (i.e. pork), '

<Analysis>	
Target UV verb:	*suq-un* '*finish* (< tasuq)'
Participants:	1. *=su* (as **Actor**) 2. *cimu' ru syam* (as **Figure undergoer**) or a complement clause, referring to an action, i.e. having salt and pork mixed up, (as **Figure undergoer**)
A paraphrase of the *finishing* event:	An actor, by mixing salt and pork, makes it impossible to recover their original forms at the end of such an action. Since the result of such an action does not have a concrete appearance, it can be analogous to content. For the case here, the main verb here is *suq-un*, its undergoer refers to the action of mixing, and the end result of the action is an abstract object. When the action is done, the original forms of the objects that were mixed together is unrecoverable. In short, the action of finishing something changes the essence of the content.
Schema:	Similar to *Transformation* (I)
Subject:	an action, i.e. having salt and pork mixed up, (as **Figure undergoer**)
Verb type:	The *–un* verb type (1): [Undergoer as Figure in *Transformation* (I) schema]. (A tentative type)

(10)   sbu-n   youzihdai.
     wrap-un   plastic.bag
     'You wrap (the mixture of salt and pork) in a plastic bag. (Lit. You use a plastic bag to have the mixture of salt and pork wrapped.)'

<Analysis>

Target UV verb:	*sbu-n* 'wrap' (< *sabu'*)
Participants:	1. an unspecified participant, =*su* (as **Actor**)
	2. youzihdai 'plastic bag' (as **Ground undergoer**)
	3. an unspecified entity, i.e. the mixture of salt and pork (as **Figure undergoer**)
A paraphrase of the *wrapping* event:	The actor exerts his/her force upon the mixture (i.e. a Figure undergoer) by means of taking it into a plastic bag (i.e. a Ground undergoer or a Ground instrument)
Schema:	*Taking*
Subject:	an unspecified entity, i.e. the mixture of salt and pork (as **Figure undergoer**)
Verb type:	The -*un* verb type (2): [Undergoer as Figure in *Taking* schema]

(11) ini' ga', sk-un sa ska' kluban.
    Neg Top store-un Loc1 middle pot
    'Or (you) store (the mixture) inside a pot'

<Analysis>	
Target UV verb:	*sku-n* 'store' (< *sku'*)
Participants:	1. an unspecified participant, =*su* (as **Actor**)
	2. *ska' kluban* 'the inside of (a) pot' (as **Ground undergoer**)
	3. an unspecified entity, i.e. the mixture of salt and pork (as **Figure undergoer**)
A paraphrase of the *storing* event:	The actor exerts his/her force upon the mixture (i.e. a Figure undergoer) by means of taking it to (a) pot (i.e. a Ground undergoer or a Ground instrument)
Schema:	*Taking*
Subject:	an unspecified entity, i.e. the mixture of salt and pork (as **Figure undergoer**)
Verb type:	The -*un* verb type (2): [Undergoer as Figure in *Taking* schema]

(12) in-liq-un '<m>umuk ru;
    in-good-un <m>lid and
    'You put a lid on (the pot) carefully.'

<Analysis>	
Target UV verb:	*in-liq-un* '(do something) well' (< *blaq* 'good')
Participants:	1. an unspecified participant, =*su* (as **Actor**)
	2. *kluban* ' (a) pot' (as **Ground undergoer**)
	3. a lid, information implied by the base of the verb *'<m>umuk*; the lid functions as **Figure undergoer** in relation to *kluban*.
A paraphrase of the *doing-well* event:	*in-liq-un '<m>umuk* is a UV+AV SVC construction, in which the first verb is the main verb and the second verb along with the following Nom NP (omitted here) can be analogous to the main verb's complement clause. Besides, such a complement clause can be conceptualized as content.
	An actor has the action of putting a lid on a pot undergoing

363

	some essential change by means of performing it carefully.
Schema:	Similar to *Transformation* (I)
Subject:	An action as content, i.e. putting a lid on a pot carefully, (as **Figure undergoer**)
Verb type:	The *–un* verb type (1): [Undergoer as Figure in *Transformation* (I) schema]. (A tentative type)

(13) sku-n   pingshiang   ru   cyugan   bingi'   lga,   al-un   ru
     store-un   refrigerator   and   three   night   FP:Top   take-un   and
     qwax-an   qsya'   qu'   s\<in\>tw-an   syam   qasa.
     wash-an   water   Nom   Vzr\<in\>-salt-an   fat.meat   that
     'After storing the pot (of salted pork) in (a) refrigerator for three nights, (you)
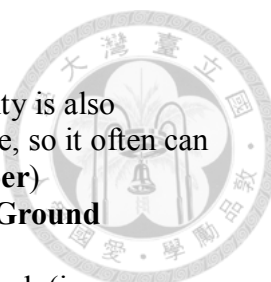   take out that salted pork and wash it.'

<Analysis>	
Target UV verb:	*sku-n* 'store' (< *sku'*)
Participants:	1. an unspecified participant, =*su* (as **Actor**) 2. pingshiang '(a) refrigerator' (as **Ground undergoer**) 3. an unspecified entity, i.e. (the) pot of salted pork (as **Figure undergoer**)
A paraphrase of the *storing* event:	The actor exerts his/her force upon (a) pot with salted pork (i.e. a Figure undergoer) by taking it to (a) refrigerator (i.e. a Ground undergoer)
Schema:	*Taking*
Subject:	an unspecified entity, i.e. (the) pot of salted pork (as **Figure undergoer**)
Verb type:	The *-un* verb type (2): [Undergoer as Figure in *Taking* schema]

<Analysis>	
Target UV verb:	*al-un* 'take' (< *agal*)
Participants:	1. an unspecified participant, =*su* (as **Actor**) 2. an unspecified entity, i.e. (the) pot of salted pork or salted pork (as **Figure undergoer**) 3. an unspecified entity, i.e. pingshiang '(a) refrigerator' (as **Ground undergoer**)
A paraphrase of the *taking* event:	The actor exerts his/her force upon (a) pot with salted pork (i.e. a Figure undergoer) by means of taking it out of (a) refrigerator (i.e. a Ground undergoer)
Schema:	*Taking*
Subject:	an unspecified entity, i.e. (the) pot of salted pork or salted pork (as **Figure undergoer**)
Verb type:	The *-un* verb type (2): [Undergoer as Figure in *Taking* schema]

<Analysis>	
Target UV verb:	*qwax-an* 'wash; clean by water' (< *qwax*)

Participants:	1. an unspecified participant, =*su* (as **Actor**) 2. *qsya'* 'water' marked by *na'* (GEN2); the entity is also information implied by the semantics of the base, so it often can be omitted from the clause. (as **Figure undergoer**) 3. *s\<in\>tw-an syam qasa* 'that salted pork' (as **Ground undergoer**)
A paraphrase of the *washing* event:	The actor exerts his/her force upon that salted pork (i.e. a Ground undergoer) by using water (i.e. a Figure undergoer) to clean it. In short, a Figure undergoer is placed upon a Ground undergoer.
Schema:	*Placement*（Ⅰ）
Subject:	*s\<in\>tw-an syam qasa* 'that salted pork' (as **Ground undergoer**)
Verb type:	The –*an* verb type (1): [Undergoer as Ground in *Placement*（Ⅰ） schema]

(14) in-liq-un   q\<m\>wax   qu'   s\<in\>tmw-an   ka   syam   qasa.
    in-good-un \<m\>wash   NOM   Vzr\<in\>salt-an   Lig   fat.meat   that
   '(You) clean that salted pork with water carefully.'

<Analysis>	
Target UV verb:	*in-liq-un* '(do something) well' (< *blaq* 'good')
Participants:	1. an unspecified participant, =*su* (as **Actor**) 2. *s\<in\>tmw-an ka syam qasa* 'that pork that has been salted' (as **Figure undergoer**)
A paraphrase of the *doing something* event:	*in-liq-un q\<m\>wax* is a UV+AV SVC construction, in which the first verb is the main verb and the second verb along with the following Nom NP, *s\<in\>tmw-an ka syam qasa* 'that pork that has been salted', can be interpreted as the main verb's complement clause, and such a complement clause can be conceptualized as content. An actor performs the action of washing salted pork, and that has salted pork undergone some essential change.
Schema:	Similar to *Transformation* (I)
Subject:	An action as content, i.e. washing salted pork carefully (as **Figure undergoer**)
Verb type:	The –*un* verb type (1): [Undergoer as Figure in *Transformation* (I) schema]. (A tentative type)

(15) ru   p-os-un   qu'   qsya',   ru   qpuh-an   ru,   s-phapuy   mami';
    and   Cau-go-un   Nom   water   and   dry-an   and   s-cook   rice
    'And then, (you) let water out of salted pork and dry it off and cook with rice.'

<Analysis>	
Target UV verb:	*p-os-un* 'let go' (< *usa'*)
Participants:	1. an unspecified participant, =*su* (as **Actor**) 2. *qsya'* 'water' (as **Figure undergoer**)
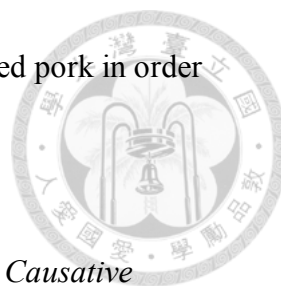
A paraphrase of the *let-going* event:	An actor exerts his/her force upon water in salted pork in order to let it go.
Schema:	*Causative motion*
Subject:	*qsya'* 'water' (as **Figure undergoer**)
Verb type:	The *–un* verb type (4): [Undergoer as Figure in *Causative motion* schema].

<Analysis>	
Target UV verb:	*qpuh-an* 'dry' (< *qapoh*)
Participants:	1. an unspecified participant, *=su* (as **Actor**) 2. an unspecified entity, salted pork that was washed (as **Ground undergoer**) 3. *qsya'* 'water' (as **Figure undergoer**)
A paraphrase of the *drying-off* event:	An actor exerts his/her force upon salted pork in order to remove water in it.
Schema:	*Removal*
Subject:	an unspecified entity, salted pork that was washed (as **Ground undergoer**)
Verb type:	The *–an* verb type (2): [Undergoer as Figure in *Removal* schema].

<Analysis>	
Target UV verb:	*s-phapuy* 'cook with'
Participants:	1. an unspecified participant, *=su* (as **Actor**) 2. *mami'* 'rice' (as **Figure undergoer**)
A paraphrase of the *cooking* event:	Rice is an instrument for the actor to undertake a cooking event.
Schema:	-
Subject:	*mami'* 'rice' as an applicative instrument NP
Verb type:	-

(16) si'   ga,   m-qapuh   qu'   p<in>haphuy=su   mami'; ini'   stmaq-i
    just   Top   m-dry   Nom   <in>cook=2Sg.Gen   rice   Neg   rot-i
    phapuy;
    cook
    '(You) have to make the rice you cooked dry; (you can) not cook rice rotten.'

(Cf. wal=mu   stmaq-un   phapuy   qu'   mami'.
    Asp=1Sg.Gen   rot-un   cook   Nom rice
    'I have cooked rice rotten.')

<Analysis>	
Target UV verb:	*stmaq-i* 'rot' (< *stmaq*)

Participants:	1. An unspecified actor, i.e. =*su* 'you' 2. An unspecified undergoer, i.e. *mami'* 'rice' (as **Figure undergoer**)
A paraphrase of the *rotting* event:	The actor exerts his/her force upon the undergoer to have it undergo an essential change.
Schema:	*Transformation* (I)
Subject:	An unspecified undergoer, i.e. *mami'* 'rice' (as **Figure undergoer**)
Verb type:	The *–un* verb type (1): [Undergoer as Figure in *Transformation* schema].

(17) bali'   nanu   ga,   m-stmaq   qu'   p<in>hapuy=su   mami
    certainly.not what   Top   m-rot   Nom <in>cook=2Sg.Gen rice
    lga,   mutux   m-stmaq   c<in>mmy-an=su.
    FP:Top   then   m-rot   <in>rice-an=2Sg.Gen
    'That is because if you cook rice rotten, the meat you have salted/pickled will
    rot.'

(18) ru   m-huqil   qu'   mami'   lga,   s-tukun   sa   hupa'   na'
    and m-die   Nom   rice   FP :Top   s-shake.out Loc1   big   Gen2
    semyanki',   ini'   ga,   q<in>wax-an   na'   bluku';
    frying.pan   Neg   Top   <in>wash-an   Gen2   bamboo.tray
    'And, when the rice is cooked, (you) shake it out in a big frying pan or a cleaned
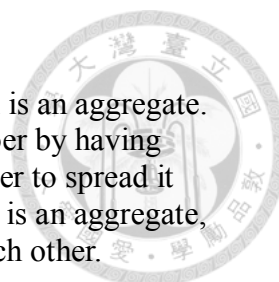   bamboo tray.'

<div align="center"><Analysis></div>

Target UV verb:	*s-tukun* 'shake out' (< *tukun*)
Participants:	1. An unspecified actor, i.e. =*su* 'you' 2. An unspecified undergoer, i.e. *mami'* 'rice' (as **Figure undergoer**) 3. *hupa' na' semyanki'* 'a big frying pan' or *q<in>wax-an na' bluku'* 'a cleaned bamboo tray' (as **Ground undergoer**), which is an adjunct of the verb *tukun* 'shake out'.
A paraphrase of the *shaking-out* event:	The actor exerts his/her force upon cooked rice (i.e. Figure) by shaking it out (namely, having it pushed toward somewhere).
Schema:	*Pushing*
Subject:	An unspecified undergoer, i.e. *mami'* 'rice' (as **Figure undergoer**)
Verb type:	The *s-* verb type (1): [Undergoer as Figure in *Pushing* schema].

(19) ru gyax-an   qu'   mami'.
    and open-an   Nom rice
    'And, (you) have it spread out.'

<div align="center"><Analysis></div>

Target UV verb:	*gyax-an* 'open' (< *gyax*)

Participants:	1. An unspecified actor, i.e. =*su* 'you' 2. *mami'* 'rice' (as **Ground undergoer**), which is an aggregate.
A paraphrase of the *opening* event:	The actor exerts his/her force upon the undergoer by having some part of it removed from other parts in order to spread it over a container. However, since the undergoer is an aggregate, all parts of the aggregate remain adjacent to each other.
Schema:	*Indivisibility*
Subject:	*mami'* 'rice' (as **Ground undergoer**), which is an aggregate
Verb type:	The -*an* verb type (3): [Undergoer as Ground in *Indivisibility* schema]

(20) bsaw-an   la.
    cool-an   FP
    '(You) have hot rice cold.'

<center><Analysis></center>	
Target UV verb:	*bsaw-an* 'cool something down' (< *basaw*)
Participants:	1. An unspecified actor, i.e. =*su* 'you' 2. An unspecified undergoer, i.e. *p<in>hapuy mami'* 'cooked rice' (as **Ground undergoer**) 3. a cold temperature, as a component implied from the semantics of the base or the derived verb here (as **Figure undergoer**)
A paraphrase of the *cooling down* event:	The actor exerts his/her force upon cooked rice (i.e. Ground) by means of having an abstract entity, i.e. a cold temperature, (i.e. Figure) placed onto it.
Schema:	*Placement (Ⅱ)*
Subject:	An unspecified undergoer, i.e. *p<in>hapuy mami'* 'cooked rice' (as **Ground undergoer**)
Verb type:	The –*an* verb type (7): [Undergoer as Ground in *Placement (Ⅱ)* schema]

(21) lg-un=su   ru;
    wait=2Sg.Gen   and
    'You wait (for the coming of some moment that the cooked rice has cooled down completely).'

<center><Analysis></center>	
Target UV verb:	*lg-un* 'wait' (< *lawa'*)
Participants:	1. An actor, i.e. =*su* 'you' 2. An unspecified entity, i.e. the coming of some moment that the cooked rice has cooled down completely (as **Figure undergoer**)
A paraphrase of the *waiting* event:	The actor is in a state of waiting for the coming of some entity. Following this, the entity can be analogous to a self-moving object.

Schema:	*Self-moving*
Subject:	An unspecified entity, i.e. the coming of some moment when the cooked rice has cooled down completely (as **Figure undergoer**)
Verb type:	The *-un* verb type (5): [Undergoer as Figure in *Self-moving* schema]

(22) tehuk sa tltu' kwara' qu' mami' lga, lps-an cimu'
     arrive Loc2 cold all Nom rice FP:Top scatter-an salt
     qu' mami'.
     Nom rice
     'When all the rice has cooled down, you scatter salt over the rice.'

<div align="center"><Analysis></div>

Target UV verb:	*lps-an* 'scatter; spray' (< *lpus*)
Participants:	1. An unspecified actor, i.e. =*su* 'you' 2. *mami'* 'cooked rice' (as **Ground undergoer**) 3. *cimu'* 'salt' (as **Figure undergoer**), which is introduced by a Gen2 case marker, if present
A paraphrase of the *scattering* event:	The actor exerts his/her force upon rice (i.e. Ground) by placing salt (i.e. Figure) on it.
Schema:	*Placement (I)*
Subject:	*mami'* 'cooked rice' (as **Ground undergoer**)
Verb type:	The *-an* verb type (1): [Undergoer as Ground in *Placement (I)* schema]

(23) in-liq-un   '<m>imaw.
     in-good-un   <m>mix
     'You mix salt and rice well/carefully.'

<div align="center"><Analysis></div>

Target UV verb:	*in-liq-un* '(do something) well' (< *blaq* 'good')
Participants:	1. an unspecified participant, i.e. =*su* 'you' (as **Actor**) 2. an unspecified aggregation, i.e. 'salt and rice' (as **Figure undergoer**)
A paraphrase of the *doing-well* event:	*in-liq-un '<m>imaw* is a UV+AV SVC construction, in which the first verb is the main verb and the second verb along with the following Nom NP (, omitted here,) can be analogous to the main verb's complement clause or object. Besides, such a complement clause can be conceptualized as content. An actor performs the action of mixing salt and rice, whose forms then undergo some basic change.
Schema:	Similar to *Transformation* (I)
Subject:	an unspecified aggregation, i.e. 'salt and rice' (as **Figure undergoer**)
Verb type:	The *–un* verb type (1): [Undergoer as Figure in *Transformation*

(24) tlam-i cikay qu' mami ; si ga k<m>tux.
    try-i a.bit Nom rice just Top <m>salty
    'Taste rice! It must be salty.'

(cf. wal=nya' tlama-n qu' mami' qa la.
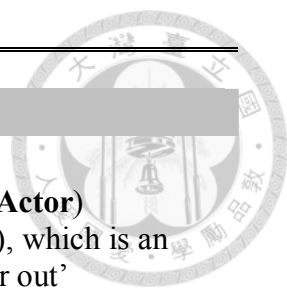   Asp=3Sg.Gen try-an Nom rice Dem FP
    'He/She has tasted the rice.')

<Analysis>	
Target UV verb:	*tlam-i* 'try; taste' (< *talma*)
Participants:	1. an unspecified participant, i.e. *=su* 'you' (as **Actor**)
	2. *mami'* 'cooked rice' (as **Ground undergoer**)
	3. an unspecified entity, i.e. the sense of smell, a component implied by the semantics of the base or the derived verb here (as **Figure undergoer**)
A paraphrase of the *tasting* event:	The actor exerts his/her force upon rice (i.e. Ground) by placing the sense of smell (i.e. Figure) on it.
Schema:	*Placement (Ⅱ)*
Subject:	*mami'* 'cooked rice' (as **Ground undergoer**)
Verb type:	The *-an* verb type (7): [Undergoer as Ground in *Placement (Ⅱ)* schema]

(25) qsya'-an cikay tltu' ka h<in>lngaw qsya' ru,
    water-an a.bit cold Lig <in>boil water and
    '(You) water the mixture with boiled water, which has now cooled down.'

<Analysis>	
Target UV verb:	*qsya'-an* 'water' (< *qsya'*)
Participants:	1. an unspecified participant, i.e. *=su* 'you' (as **Actor**)
	2. *mami'* 'cooked rice' (as **Ground undergoer**)
	3. *tltu'ka h<in>lngaw qsya'* (as **Figure undergoer**)
A paraphrase of the *watering* event:	The actor exerts his/her force upon rice (i.e. Ground) by placing cold water (i.e. Figure) on it.
Schema:	*Placement (Ⅰ)*
Subject:	*mami'* 'cooked rice' (as **Ground undergoer**)
Verb type:	The *-an* verb type (1): [Undergoer as Ground in *Placement (Ⅰ)* schema]

(26) m-huzyaq cikay qu' mami' lga, s-tukun sa ska'
    m-wet a.bit Nom rice FP:Top s-shake.out Loc1 middle
    rice qu' syam ru,
    mami' Nom fat.meat and
    'When rice gets wet, (you) pour meat onto rice.'

<Analysis>	
Target UV verb:	*s-tukun* 'shake out; pour out' (< *tukun*)
Participants:	1. an unspecified participant, i.e. *=su* 'you' (as **Actor**) 2. *mami'* 'cooked rice' (as **Ground undergoer**), which is an adjunct NP to the verb *tukun* 'shake out; pour out' 3. *syam* 'fat meat; pork'(as **Figure undergoer**)
A paraphrase of the *shaking-out* event:	The actor exerts his/her force upon cooked rice (i.e. Figure) by shaking it out to rice(namely, having it pushed toward rice).
Schema:	*Pushing*
Subject:	*syam* 'fat meat; pork'(as **Figure undergoer**)
Verb type:	The *s*- verb type (1): [Undergoer as Figure in *Pushing* schema]

(27) in-liq-un   '<m>imaw   kin   na'   mami'   la.
     in-good-un   <m>mix   with Gen1   rice   FP
     '(You) mix meat with rice.'

<Analysis>	
Target UV verb:	*in-liq-un* '(do something) well' (< *blaq* 'good')
Participants:	1. an unspecified participant, i.e. *=su* 'you' (as **Actor**) 2. an unspecified undergoer, i.e. meat (as **Figure undergoer**) 3. *mami'* 'rice' (as **Figure undergoer**)
A paraphrase of the *doing-well* event:	*in-liq-un '<m>imaw* is a UV+AV SVC construction, in which the first verb is the main verb and the second verb along with the following prepositional phrase *kin na' mami'* and Nom NP (omitted here) can be construed as the main verb's complement clause. Besides, such a complement clause can be conceptualized as content. An actor performs the action of mixing salt and rice undergoing some basic change by doing it carefully.
Schema:	*Transformation* (I)
Subject:	an unspecified aggregate, i.e. 'salt and rice' (as **Figure undergoer**)
Verb type:	The *–un* verb type (1): [Undergoer as Figure in *Transformation* (I) schema]. (A tentative type)

(28) qop-i   cikay   qu'   mami'   ru ;   tlam-i   maniq.
     scoop   a.bit   Nom   rice   and   try-i   <m>eat
     'Scoop some rice and taste it!'

(Cf. wal=mu   qop-un   qulih.
     Asp=1Sg.Gen net-un   fish
     'I have netted fish (before)'

<Analysis>	

371

Target UV verb:	*qop-i* 'scoop; net' (< *qop*)
Participants:	1. an unspecified participant, i.e. =*su* 'you' (as **Actor**) 2. *mami'* 'rice' (as **Figure undergoer**)
A paraphrase of the *scooping* event:	The actor exerts his/her force upon the undergoer (i.e. Ground), rice, by taking it away and then holding it.
Schema:	*Taking*
Subject:	*mami'* 'rice' (as **Figure undergoer**)
Verb type:	The -*un* verb Type (2): [Undergoer as Figure in *Taking* schema]

<Analysis>	
Target UV verb:	*talam* 'try; taste' (< *tlama'*)
Participants:	1. an unspecified participant, i.e. =*su* 'you' (as **Actor**) 2. *mami'* 'rice' (as **Ground undergoer**) 3. an unspecified entity, i.e. the sense of smell, which is a component implied by the semantics of the base or the derived verb (as **Figure undergoer**)
A paraphrase of the *tasting* event:	The actor exerts his/her force upon rice (i.e. Ground) by placing his/her sense of smell (i.e. Figure) on it.
Schema:	*Placement (Ⅱ)*
Subject:	*mami'* 'cooked rice' (as **Ground undergoer**)
Verb type:	The -*an* verb type (7): [Undergoer as Ground in *Placement (Ⅱ)* schema]

(29) k<m>tux   cikay   niq-un   qu'   mami'   lga,   nanu   s-tukun
     <m>salty   a.bit   eat-un   Nom   rice   FP:Top   what   s-shake.out
     sa   ska'   mami'   qu'   syam;
     Loc1 middle   rice   Nom fat.meat
     'When rice tasted salty, (you) pour pork into rice.'

<Analysis>	
Target UV verb:	*s-tukun* 'shake out; pour out' (< *tukun*)
Participants:	1. an unspecified participant, i.e. =*su* 'you' (as **Actor**) 2. *mami'* 'cooked rice' (as **Ground undergoer**), which is an adjunct phrase to the verb *tukun* 'shake out; pour out' 3. *syam* 'fat meat; pork'(as **Figure undergoer**)
A paraphrase of the *shaking-out* event:	The actor exerts his/her force upon cooked rice (i.e. Figure) by shaking it out to rice(namely, having it pushed toward rice).
Schema:	*Pushing*
Subject:	*syam* 'fat meat; pork'(as **Figure undergoer**)
Verb type:	The *s*- verb type (1): [Undergoer as Figure in *Pushing* schema]

(30) tkr-on   sa   ska'   na'   mwayaw   ru,   ini'   ga,   yuyut;
     pack-un   Loc1   middle   Gen1   jug   and   Neg   Top   bottle
     '(You) pack (a mixture of pork and rice) into a jug or a bottle.'

<Analysis>	
Target UV verb:	*tkr-on* 'pack' (< *tkura'*)
Participants:	1. an unspecified participant, i.e. *=su* 'you' (as **Actor**) 2. *ska'na'mwayaw* 'jug' or *yuyut* 'bottle' (as **Ground undergoer**), which is an adjunct NP of the verb *tkura'* 'pack' 3. an unspecified participant, i.e. a mixture of pork and rice (as **Figure undergoer**)
A paraphrase of the *packing* event:	**The actor** takes **the undergoer (as Figure), i.e.** *syam ru mami'* 'salt and rice', by hand and moves it somewhere.
Schema:	*Taking*
Subject:	an unspecified participant, i.e. a mixture of pork and rice (as **Figure undergoer**)
Verb type:	The *-un* verb type (2): [Undergoer as Figure in *Taking* schema]

(31) gyut-un   gyut-un   tkura'   lru,
      gradually   gradually   pack   FP:and
      '(You) pack a mixture of pork and rice little by little (into a jug or a bottle).'

<Analysis>	
Target UV verb:	*gyut-un* 'do gradually ; little by little' (< *gyut*)
Participants:	1. an unspecified participant, i.e. *=su* 'you' (as **Actor**) 2. an unspecified participant, i.e. a mixture of pork and rice (as **Figure undergoer**)
A paraphrase of the *doing-gradually* event:	*gyut-un gyut-un tkura'* is a UV+AV SVC construction, in which the first verb is the main verb and the second verb along with the following Nom NP (omitted here) can be construed as the main verb's complement clause. Besides, such a complement clause can be conceptualized as content. An actor performs the action of packing a mixture of pork and rice undergoing some essential change as the action is done little by little carefully.
Schema:	Similar to *Transformation* (I)
Subject:	an unspecified participant, i.e. a mixture of pork and rice (as **Figure undergoer**)
Verb type:	The *–un* verb type (1): [Undergoer as Figure in *Transformation* (I) schema]. (A tentative type)

(32) sthahay   qu'   mami'   qasa   lga ,   s-'umuk   sa   babaw   na'
      left.over   Nom   rice   that   FP:Top   s-lid   Loc1   above   Gen
      syam   sa   ska' na mwayaw   ru,
      fat.meat   Loc1   middle Gen jug   and
      'As for the leftover rice, (you) use it to cover the pork in (the) jug.'

<Analysis>	
Target UV verb:	*s-'umuk* 'lid with'

Participants:	1. an unspecified participant, =*su* (as **Actor**) 2. *mami'* 'rice' (as **Figure undergoer**)
A paraphrase of the *covering* event:	Rice is an instrument for the actor to undertake a covering event.
Schema:	-
Subject:	*mami'* 'rice' as an applicative instrument NP
Verb type:	-

(33) in-liq-un   '<m>umuk   na'   youzhihtai,   in-liq-un   pskut   mhul;
    in-good-un <m>lid   Gen2   plastic.bag   in-good-un   tight   m.bind
    '(You) use a plastic bag to cover (the jug) (carefully); (you) seal (the jug).'

<Analysis>	
Target UV verb:	*in-liq-un* '(do something) well' (< *blaq* 'good')
Participants:	(Take the complement clause that begins with '<m>umuk as an example) 1. an unspecified participant, =*su* (as **Actor**) 2. '(a) jug' (as **Ground undergoer**) 3. a plastic bag (as **Figure undergoer**)
A paraphrase of the *doing-welling* event:	*in-liq-un '<m>umuk* is a UV+AV SVC construction, in which the first verb is the main verb and the second verb along with the following NP *youzhihtai* and Nom NP (, omitted here,) can be taken as the main verb's complement clause. Besides, such a complement clause can be conceptualized as content. An actor does the action of sealing a jug with a plastic bag undergoing some essential change by performing it carefully.
Schema:	Similar to *Transformation* (I)
Subject:	An action as content, i.e. putting a lid on a pot carefully, (as **Figure undergoer**)
Verb type:	The –*un* verb type (1): [Undergoer as Figure in *Transformation* (I) schema]. (A tentative type)

(34) ini'   psngya-i;
    Neg   crack-i
    'Don't let air enter (the jug or the bottle with the pickled meat).'

    (Cf. wal=su   psngya-un   la   qu'   t-mmy-an=su.
        Asp=2Sg.Gen   crack-un   FP   Nom   Vzr-rice-an=2Sg.Gen
        'You have let air enter (the jug or the bottle with) the pickled meat.'

<Analysis>	
Target UV verb:	*psngya-i* 'ventilate; crack' (< *psngya'*)
Participants:	1. an unspecified actor, =*su* 'you' 2. an unspecified undergoer, *t-mmy-an=su* '(the meat) you salted' (as **Figure undergoer**)
A paraphrase of	It seems as the actor cracks the Figure undergoer in order to let

the *cracking* event:	air in and that causes the undergoer to spoil.
Schema:	*Transformation* (I)
Subject:	an unspecified undergoer, *t-mmy-an=su* '(the meat) you salted' (as **Figure undergoer**)
Verb type:	The *–un* verb type (1): [Undergoer as Figure in *Transformation* (I) schema].

(35) maha 'bagan ga, tehuk sa pusal msyaw bingi' lga,
   QP summer Top arrive Loc2 twenty more night FP:Top
   baq-un maniq la.
   know-un eat.m FP
   In summer, after twenty nights, you will know (it is time) to taste (the pickled pork).

<div align="center"><Analysis></div>

Target UV verb:	*baq-un* 'know' (< *baq*)
Participants:	1. an unspecified cognizer 2. an unspecified undergoer, i.e. fermented pork (as **Figure undergoer**)
A paraphrase of the *knowing* event: Schema:	Fermented pickles may be analogous to a stimulus, so that once activated, it enters into the consciousness of the cognizer; in the case here, fermented pickle causes him to long for it. *Cognition*
Subject:	an unspecified undergoer, i.e. fermented pork (as **Figure undergoer**)
Verb type:	The *–un* verb type (6): [Undergoer as Figure in *Cognition* schema].

(36) iy kmisan lga, si ga h<m>inas qutux byacing msyaw
   Fil winter FP:Top just Top <m>pass.through one moon more
   lga, baq-un maniq la.
   FP:Top know-un eat.m FP
   'In winter, it must take over one month (for salted pork fermenting); at that time, (you) will know (it is time) to taste (the pickled pork).'

<div align="center"><Analysis></div>

Target UV verb:	*baq-un* 'know' (< *baq*)
Participants:	1. an unspecified cognizer 2. an unspecified undergoer, i.e. fermented pork (as **Figure undergoer**)
A paraphrase of the *knowing* event: Schema:	Fermented pickles may be analogous to a stimulus, so that once activated, it enters into the consciousness of the cognizer; in the case here, fermented pickle causes him to long for it. *Cognition*
Subject:	an unspecified undergoer, i.e. fermented pork (as **Figure undergoer**)

Verb type:	The *–un* verb type (6): [Undergoer as Figure in *Cognition* schema].

(37) bali　　　　nanu　ga,　kmisan　hya'　　　ga,　hzyaq ;　ini'
certainly.not　what　Top　winter　3Sg.Neu　Top　cold　Neg
k-helaw　　m-huqil　qu'　t-mmy-an　ka　syam　qani.
Stat-quick　m-die　Nom　Vzr-rice-an　Lig　fat.meat　this
'That's because in winter, it is (often) cold; the salted pork doesn't ferment
　quickly.'