TEMPORAL EXPRESSIONS IN BALINESE: FOCUSED ON THE SEMANTIC FUNCTIONS OF TEMPORAL ADVERBIALS

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Abstract
This paper focuses on temporal expressions in the Balinese language. The discussion of temporal expressions is based on theories of temporal semantic functions proposed by Haspelmath (1997) and Pan (2010). The results show that Balinese temporal expressions can be classified into four semantic functions, which can be further classified into several subcategories. The four semantic functions are (1) temporal locations, (2) temporal extent, (3) frequency, and (4) miscellaneous functions. The choice of temporal adverbial marking in Balinese is influenced by speech register. Another important point in Balinese temporal adverbial marking is the notion of definiteness. Definiteness in Balinese is not only marked on the linguistic unit of a particular temporal adverbial, but also on the marker itself, particularly for temporal adverbials, which indicates a situation as the reference time.

Keywords: temporal marker, semantic function, speech register, definiteness

ISO 639-3 codes: ban

1 Introduction
Balinese is an Austronesian language which belongs to the Malayo-Sumbawan sub-group (Adelaar 2005). This language is spoken by most Balinese people in Bali and other Balinese communities in Indonesia, such as in South Sulawesi and West Nusa Tenggara. According to the language census in 2000, the number of Balinese speakers is 3,330,000 (Lewis et al. 2015).

Although Balinese is an agglutinative language, only a limited number of words realizing temporal adverbial functions can undergo morphological processes. Most of the temporal adverbial functions in Balinese are lexically expressed.

In addition, Balinese is a language that has speech levels. Speech levels in Balinese known as Anggah-Ungguhin Basa Bali were officially launched on Pasamuan Agung Basa Bali 'Balinese Language General Summit' in 1974 (Naryana 1984:19). Unfortunately, until now, there is no agreement among the sociolinguists in Bali regarding the number of speech levels Balinese has. Thus, different classifications are proposed. Following Arka (2005), for simplicity, in this paper we use traditional divisions of Balinese speech levels into lumrah ‘low register’ and halus ‘high register’. These levels are mostly expressed lexically, and the words or lexical items may vary according to the registers. All words categories (e.g. nouns, verbs, adjectives, etc.) may have two distinct forms according to speech levels (cf. Arka 2005). However, not every word in each word category has two distinct forms for each level. Most Balinese words are level-neutral, meaning that those words can be used for either level.

The following examples are used to illustrate the two speech levels. The structures of the two sentences are the same, and both sentences have the same meaning as shown by the English translation. They have
different lexical choices in Balinese because they belong to different levels. The example in (1) illustrates the low register, while the example in (2) illustrates the high register.

(1) Low Register

\[
\begin{align*}
& \text{maní} \quad \text{yang} \quad \text{kal} \quad \text{ka} \quad \text{Jawa} \\
& \text{tomorrow} \quad 1\text{SG} \quad \text{will} \quad \text{to} \quad \text{Java} \\
\end{align*}
\]

‘Tomorrow, I will go to Java.’

(2) High Register

\[
\begin{align*}
& \text{Benjang} \quad \text{titiang} \quad \text{jagi} \quad \text{ke} \quad \text{Jawi} \\
& \text{tomorrow} \quad 1\text{SG} \quad \text{will} \quad \text{to} \quad \text{Java} \\
\end{align*}
\]

‘Tomorrow, I will go to Java.’

Another feature that plays an important role in Balinese temporal expressions is the notion of definiteness. Balinese has two types of definiteness: simple and complex. Simple definiteness in Balinese is marked by a bound morpheme –(n)é. This definite marker is attached to a noun to get a definite expression. The use of the definite marker in Balinese can be seen in the example in (3).

(3) a. \[
\begin{align*}
& \text{Semanéng-é} \quad \text{tiang} \quad \text{lakar} \quad \text{meli} \quad \text{jukut} \quad \text{di} \quad \text{peken} \\
& \text{morning-DEF} \quad 1\text{SG} \quad \text{will} \quad \text{buy} \quad \text{vegetable} \quad \text{LOC} \quad \text{market} \\
\end{align*}
\]

‘In the morning, I will buy vegetables at the market.’

b. *\[
\begin{align*}
& \text{Semanéng} \quad \text{tiang} \quad \text{lakar} \quad \text{meli} \quad \text{jukut} \quad \text{di} \quad \text{peken} \\
& \text{morning} \quad 1\text{SG} \quad \text{will} \quad \text{buy} \quad \text{vegetable} \quad \text{LOC} \quad \text{market} \\
\end{align*}
\]

*‘In the morning, I will buy vegetables at the market.’

In example (3a), the definite marker –é is obligatory; if the definite marker –é is omitted, the clause becomes ungrammatical, as seen in (3b).

Studies on temporal expressions can be viewed from different perspectives depending on the devices that are used to express time in a particular language. These temporal expressions can be encoded through six types of devices, namely, tense, aspect, aktionsaart, temporal adverbials, temporal particles, and discourse principles (Klein 2009:2-3). It is noted that not all languages have all those devices. Temporal adverbials are the most common devices across languages, and they can be found in all languages (Comrie 1998:6; Klein 2009), in contrast to tense and aspect.

The distinctive features of temporal adverbials can be described as follows. Temporal adverbials can be simple (e.g. now, soon, often, etc.), morphologically compound (e.g. today, rapidly, afterwards, etc.) or syntactically compound (e.g. after the war, long ago, when the saints go marching in, etc.). Functionally, they can describe very different temporal features, such as position on the time line (e.g. now, yesterday, next year, etc.), duration (e.g. for two hours), frequency (e.g. rarely), and many others whose precise role is not easy to determine (e.g. still, again, etc.) (Klein 2009:3).

Previous studies on temporal expressions in Balinese have been done by Sukartha (1987) and Dhanawaty (1990). Sukartha (1987) examined time markers in Balinese as classified according to the moment of speaking. The result of this study showed that tense in Balinese is lexically marked and can be expressed by a word, a phrase, or a clause. The use of “tense” as a grammatical category is misleading because Balinese is a tenseless language. There are no verb inflections in Balinese that represent temporal expressions based on the moment of speaking; that is, there are no verb inflections to represent temporal expressions for location in time. We assume that this study was actually part of the research on temporal adverbials, not on tense. Dhanawaty (1990) examined the aspect markers in Balinese. This study used the definition of aspect proposed by Comrie (1978), who states, “aspects are different ways of viewing the internal temporal constituency of situation”. Dhanawaty’s study showed that there are two ways of identifying aspects in Balinese: (1) through the use of lexical items, and (2) through the context of discourse (Dhanawaty 1990:186). We argue that this was also part of the research on temporal adverbials in Balinese.
There are two types of data used in this study: (i) data taken from written texts and (ii) data elicited from native speakers. The written data were used as the main data, while the spoken data were collected through elicitation in order to get a rich variety of data. The written data were collected from short stories and narrative texts published in the weekly Balinese-language newspaper, Bali Orti, which were published between 2013 and 2015. The short stories collections used in this study include Belog written by Tudekamatra (2014), Ngurug Pasih written by I Gede Putra Ariawan (2014), and Bungklang Bungkling written by I Wayan Juniarta (2008). These short stories reflect the daily life of Balinese people, while the narrative texts from the weekly Balinese-language newspaper reflect variety of topics.

The types of semantic functions, linguistic units, and marking strategies for temporal adverbials are the focus of this article. This study on temporal adverbials in Balinese contributes to understanding of their functions and marking strategies in Balinese as well as similar phenomena in other Austronesian languages.

The paper is organized as follows. Section (2) presents a description of the semantic functions of Balinese temporal adverbials as the basis for classifying them. Section (3) describes the marking strategies of Balinese temporal adverbials. Section (4) discusses the notion of definiteness in relation to the temporal adverbial functions. Section (5) provides conclusions.

2 The semantic functions of temporal adverbials

The semantic functions of temporal adverbials in a clause or sentence can be defined based on the relationship between the characterized situation, the reference time, and the time unit of the clause or the sentence (Haspelmath 1997). These three features are mainly used to place temporal adverbials into two major categories of semantic functions: the temporal location and the temporal extent.

This study of temporal expressions in Balinese is based on theory of the temporal semantic function proposed by Haspelmath (1997). The scope of Haspelmath’s study of the semantic functions was limited to an NP-based adverbial function. However, this study tries to take a wider scope of study, which also includes temporal clauses as having adverbial functions. Haspelmath’s theory was built based on typological tools for field linguistics which include tools for analysing location in time proposed by Comrie and Smith (1977). Haspelmath (1997) divides the major semantic functions of NP-based time adverbials into two categories, namely ‘the location in time’ and ‘the temporal extent’. Beside these two major semantic functions, Haspelmath also proposed five other semantic functions for temporal expressions, which are ‘medial’, ‘approximative’, ‘perdurative’, ‘purposive extent’, and ‘regular recurrent’.

Another study on temporal expressions that we consider was conducted by Pan (2010). He adopted Haspelmath’s theory of the classification of major semantic functions of temporal adverbials. Pan did not use the other semantic functions proposed by Haspelmath, but he added frequency and miscellaneous semantic functions. The frequency semantic function is sub-categorized into quantifying, cardinal, and proportional, while miscellaneous semantic functions consist of five sub-categories, namely ‘durational’, ‘punctual’, ‘sequential’, ‘repetitive’, and ‘others’.

For the sake of completeness, this study tries to adopt all the semantic functions from Haspelmath and Pan. For these reasons, the semantic functions used in this study are (1) ‘location in time’, (2) ‘temporal extent’, (3) ‘frequency’, and (4) other semantic functions which consist of ‘approximative’, ‘perdurative’, ‘durational’, ‘punctual’, ‘sequential’, ‘repetitive’, ‘medial’, and ‘purposive extent’. The semantic functions of temporal adverbials used in this study are classified as in Table 1.
Table 1: The semantic functions of temporal adverbials

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-category</th>
<th>Sub-subcategory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Location in Time</td>
<td>1. simultaneous location</td>
<td>(a) hour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) day part</td>
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<td></td>
<td></td>
<td>(c) day</td>
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<td>(f) year</td>
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<td>(g) festival</td>
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<td>2. sequential location</td>
<td>(a) anterior</td>
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<td></td>
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<td>(b) posterior</td>
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<td></td>
<td>3. sequential-durative</td>
<td>(a) anterior-durative</td>
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<tr>
<td></td>
<td></td>
<td>(b) posterior-durative</td>
</tr>
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<td></td>
<td>4. temporal distance</td>
<td>(a) distance-future</td>
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<tr>
<td></td>
<td></td>
<td>(b) distance-past</td>
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<td>2. Temporal Extent</td>
<td>1. atelic extent</td>
<td></td>
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<tr>
<td>3. distance-posterior</td>
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<tr>
<td>3. Frequency</td>
<td>1. quantifying frequency</td>
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<td></td>
<td>2. cardinal frequency</td>
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<td>3. proportional frequency</td>
<td>1. high proportional</td>
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<td>2. medial proportional</td>
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<td>3. low proportional</td>
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<tr>
<td>4. Miscellaneous</td>
<td>1. approximative</td>
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<td></td>
<td>2. perdurative</td>
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<td>3. durational</td>
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<td></td>
<td>4. punctual</td>
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<td>5. sequential</td>
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<td>6. repetitive</td>
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<td>7. medial</td>
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<td></td>
<td>8. purposive extent</td>
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</tbody>
</table>

3 The marking strategies of Balinese temporal adverbials

The marking strategies of Balinese temporal adverbials are discussed in this section according to the classification of the semantic functions of temporal adverbials. The classification includes location in time, temporal extent, frequency, and miscellaneous semantic functions.

3.1 Location in time

The semantic function of location in time can be divided into a simultaneous location, a sequential location, a sequential durative, and a temporal distance. Each of these semantic functions can be further sub-classified into several categories as follows.

3.1.1 Simultaneous location

Haspelmath proposed that the reference time for a simultaneous location is represented by a canonical time period, which consists of an hour, day-part, day, month, season, year, and festival (Haspelmath, 1997:31). Haspelmath’s study is limited to NP-based temporal expressions, but the temporal adverbials in this study are not limited to only NP-based temporal expressions. They also include a larger linguistic unit, namely, the clause. In Balinese, temporal adverbials can be represented not just by individual lexical items or NPs, but also by a clause.

There are several prepositions which are used to mark a simultaneous location. These propositions are di ‘at’, ring ‘at’, duk ‘when’ or ‘at’, dugas ‘when’, kayang ‘when’, ri kala ‘when’, and sambilang ‘while’. The marking strategies for simultaneous location sometimes cause some problems for a non-native speaker.
learning Balinese because there are some lexical restrictions for any given preposition. These restrictions relate to the indented deictic meaning and speech levels.

The use of the canonical time unit ‘hour’ as a temporal adverbial is unmarked. There is no preposition needed when this time unit is used to represent the notion of time in a sentence. Since there are no words for denoting the concepts of ‘AM’ and ‘PM’ in Balinese, the time unit hour is usually combined with other words, which denote day-parts. However, the presence of these words is not obligatory because ‘hour’ itself can be used as a temporal adverbial without any further modification. In example (4a), the adverbial function is represented by the NP jam telu sanja ‘three o’clock in the evening’. The word sanja ‘evening’ as a qualitative temporal marker, which belongs to ‘day-part’, can be omitted, and the result is example (4b).

(4) a. Jam telu sanja, para karyawan-é suba pada magegampil
\hspace{1cm} hour three evening all worker-DEF already all clean up
‘At three o’clock in the evening, all the workers are cleaning up.’ (Belog 2014:44)

b. Jam telu, para karyawan-é suba pada magegampil
\hspace{1cm} hour three all worker-DEF already all clean up
‘At three o’clock, all the workers are cleaning up.’

The prepositions di and ring ‘at’ are neutral prepositions for almost all simultaneous location temporal adverbials. However, these prepositions cannot be used as temporal adverbials, which are represented by clauses. The preposition di ‘at’ is used in the low register, and so this preposition is followed by low-register words. In contrast, the preposition ring ‘at’ is a high-register word and is always followed by high-register words. However, the use restrictions for di and ring are not applicable to some words, particularly those words that have only one form for both registers. For instance, the names for days of the week such as Redite ‘Sunday’, Soma ‘Monday’, and so on are examples of words which can be used in both registers.

An example of the preposition di can be seen in (5), while an example of ring is in (6).

(5) Apabuin anak-é dini tusing nawang peteng, wirêh
\hspace{1cm} moreover people-DEF here NEG know night because
\hspace{1cm} di lemah-né makejang anak-é magaé
\hspace{1cm} LOC day-POSS all people-DEF work
‘Moreover, people here don’t care that the day has turn into the night, because they all work in the daytime.’ (Ngurug Pasih 2014:70)

(6) Ring redite-né titiang ngraris mantuk mangda
\hspace{1cm} LOC sunday-DEF 1SG continue going home so that
\hspace{1cm} polih muspa
\hspace{1cm} get pray
‘On Sunday, I go home so that I can pray.’ (Bali Orti, May 25th, 2014:7)

Balinese has two unique markers for simultaneous locations: kayang ‘when’ and dugas ‘when’. Both kayang and dugas can be used to mark adverbial functions, which are represented by a time period in the form of a word, phrase, or clause. However, kayang is used only for the time period or situation which has not occurred yet (i.e., ‘the canonical time period’ or ‘situation’ in the future). Dugas is used to mark adverbial functions with a reference time in the past. Another marker is ri kala ‘when’. This marker is a neutral marker for festival or situation because it brings no deictic meaning. An example of kayang is provided in (7), while an example of dugas is provided in (8).

(7) Dadong-dadong-é masi asli lakar kakak-kikik
\hspace{1cm} granny-REDUP-DEF also indeed will laugh
\hspace{1cm} maceki kayang totonan
\hspace{1cm} playing cards when FUT that
‘The grannies indeed will be just playing cards and laughing at that time.’

(Bungklang Bungkling 2008:76)

xxx
In (7), the word kayang marks the reference time, which is represented by the word totonan. The literal meaning of this word is ‘that’ in English. In this case, we can interpret the meaning of this word as ‘that time’ because it is marked by the word kayang, which denotes the time in the future. The example in (8) shows that the word dugas marks a clause enu maurip ‘still alive’ as the reference time of the sentence.

3.1.2 Sequential location
This sequential semantic function consists of two sub-categories, namely ‘anterior’ and ‘posterior’ semantic functions. Although the sub-categories of this semantic function are not as numerous as the functions of simultaneous location, the variations of their markers are quite complex. The markers for the ‘anterior’ are satondén ‘before’ (low register) and sadurung ‘before’ (high register), while the markers for the ‘posterior’ are sasuba ‘after’ (low register) and sasampun ‘after’ (high register). These markers are inflected by adding the prefix sa– to their basic forms tonden ‘not yet’ (low register), durung ‘not yet’ (high register), suba ‘already’ (low register), and sampun ‘already’ (high register). The results of this morphological process are satondén, sadurung, sasuba, and sasampun. The definite marker –(n)é can be attached to these forms to derive word forms such as satondéné, sadurungé, sasubané, and sasampuné.

The words suba and sampun can take the prefix di– and the definite marker–(n)é simultaneously. The resulting forms are disubane ‘at the time after’ (low register) and disampuné ‘at the time after’ (high register). These forms are used to mark a posterior semantic function. A similar process is not applicable to the anterior markers satondné and sadurungé. This means that there were no words such as ditondéné and didurungé found in the data. The example in (9) shows that satondén is used to mark a reference time which is represented by the noun phrase bel masuk (lit ‘bell enter’), while the example in (10) shows that sadurung marks the clause masiram utawi maraup ‘take a bath or washing the face’. This subject of this clause is deleted because it is coreferential with the subject of the main clause.

In examples (11) and (12), the words sasuba and sasampun are used to mark a posterior sequential location. In example (11), sasuba ‘after’ (low register) marks the clause bayuné karasa luungan ‘feel better’ as the reference time of the sentence. In example (12) sasampun ‘after’ (upper register) marks the noun phrase tengah lemeng ‘middle of the night’ as the reference time of the clause.

(8) Bapa-n-né dugas enu maurip kasub dadi pragina
father-LIG-POSS when PAST still be alive famous become dancer
‘Her father was a famous dancer when he was still alive.’ (Ngurug Pasih 2014:2)

In examples (11) and (12), the words sasuba and sasampun are used to mark a posterior sequential location. In example (11), sasuba ‘after’ (low register) marks the clause bayuné karasa luungan ‘feel better’ as the reference time of the sentence. In example (12) sasampun ‘after’ (upper register) marks the noun phrase tengah lemeng ‘middle of the night’ as the reference time of the clause.

(9) satondén bel masuk ajakin tiang I Putu ajak Tu Ari Bolos
before bell enter invite 1SG ART NAME and NAME skip
‘Before the bell ring, I asked Putu and Tu Ari to skip class.’ (Bali Orti, June 9th, 2013:17)

(10) raga-né mula nénten biasa ngawédang utawi ngajengang sadurung masiram utawi maraup
3SG-DEF indeed not usual drink-coffee or eat take a bath or wash face
‘S/he indeed usually could not drink coffee or eat some food before taking a bath or washing her/his face.’ (Bali Orti, Juni 23rd, 2013:7)

In examples (11) and (12), the words sasuba and sasampun are used to mark a posterior sequential location. In example (11), sasuba ‘after’ (low register) marks the clause bayuné karasa luungan ‘feel better’ as the reference time of the sentence. In example (12) sasampun ‘after’ (upper register) marks the noun phrase tengah lemeng ‘middle of the night’ as the reference time of the clause.

(11) Sasuba bayu-né ka-rasa luungan Dadong Dengkot nglanturang pajalan-é
after power-DEF pass-feel better granny NAME continue journey-DEF
‘After she felt better, Granny Dengkot continued her journey.’ (Bali Orti, July 21st, 2013:17)

(12) I Kaki Dengkil pules sasampun tengah lemeng
ART grandpa NAME sleep after middle night
‘Grandpa Dengkil sleeps after midnight.’ (Bali Orti, July 21st, 2013:17)
### 3.1.3 Sequential durative

The sequential durative function can be classified into an ‘anterior durative’ and a ‘posterior durative’. The anterior durative in Balinese is marked by words *kanti* ‘until’, *nganti* ‘until’, *ngantos* ‘until’, and *neked* ‘until’, while the posterior durative is marked by words *uli/uling* ‘since’ and *sekat* ‘since’. Generally, there is no lexical blocking for the anterior marker with respect to speech level, but somehow in practice, words such as *nganti* and *ngantos* tend to be more polite than the words *kanti*.

The unique feature of the markers here is their lexical category. The markers *nganti*, *ngantos* and *neked* belong to the verb category. They are derived from the base forms *kanti*, *antos* and *teked* which have undergone verbalization through the verbal nasal prefix (N-prefix). So in this case, these verbs can be used to mark the anterior durative function.

In example (13), the word *kanti* ‘until’ marks the NP *jam 12 peteng* ‘12 o’clock midnight’ as the reference time of the clause. It represents the durative anterior function.

(13) Jalanné matutup *kanti* jam 12 peteng
road-DEF MA-close until hour 12 night
‘The road is closed until 12 o’clock in the middle of the night.’ (Ngurug Pasih 2014:72)

In examples (14) and (15) the anterior durative functions are marked by verb *nganti* ‘until’ and *ngantos* ‘until’. Although both of them have the same meaning, but in practice, the verb *ngantos* tends to be more polite than the verb *nganti*.

(14) *Nganti* mangkin _tiang_ nenten bani ngadol, nenten bani
until now 1SG not dare sell not dare
*tiang* sugih ulian ngadol tanah
1SG rich because sell land
‘Until now, I am afraid to sell, afraid to be rich because of selling the land.’
(Bali Orti, May 25th, 2014:17)

(15) *Ngantos* lintang tengah wengi Gusti Ngurah durung merem
until pass middle night NAME not yet sleep
‘Until past midnight Gusti Ngurah doesn’t sleep.’ (Bali Orti, September 14th, 2014:7)

Example (16) below shows the use of the preposition *uli* ‘since’ as a posterior durative function marker. This preposition is followed by the NP *ibi sanja* as the reference time. In examples (17) and (18), the marker is represented by the word *uling*, which has the same meaning as *uli*. In the example (17), *uling* is followed by the word *tuni* ‘a few times ago’, while in the example (18), *uling* is followed by the adjective *cerik* ‘young’. This suggests that the reference time can be represented by a time-related word or adjective as long as it is preceded by a temporal marker.

(16) Dek Agus majujuk delod perempatanné, *uli* *ibi* sanja
NAME stand south junction-DEF, since yesterday evening
Makejang bakat kenehanga
all unconsciously think
‘Dek Agus is standing in the west side of the junction, he unconsciously has been thinking about everything since yesterday night.’ (Ngurug Pasih 2014:70)

(17) *Tiang* *uling* *tuni* satata ngetor kaliwat jejeh
1SG since a few times ago always tremble over scared
‘I always tremble due to past occasions because (I am) too scared.’ (Ngurug Pasih 2014:18)

(18) *Uling* *cerik* ia suba kalahina tekén mémé-né
since young 3SG already abandon-PASS by mother-POSS
‘She had been abandoned by her mother, since she was still very young. (Ngurug Pasih 2014:7)
The semantic function of the posterior durative can also be marked by the preposition sekat ‘since’ or sasukat ‘since’. Although the markers uli/uling and sekat/sasukat look similar, in fact they are different. Uli/uling can be used to mark both time and place, e.g. uling peken ‘from market’ uling ibi ‘since yesterday’, but sekat/sasukat is only used to mark time. There is no expression such as *sekat peken ‘since market’. Another distinction between uli/uling and sekat/sasukat is the types of expressions which can follow the marker.

The marker sekat/sasukat tends to precede reference time. The reference time that occurs after sekat/sasukat is usually a situation which can also be replaced by a demonstrative pronoun that can refer to any situation. This use of sekat/sasukat can be seen in example (19).

(19) Sasukat ento, sabilang wai tiang nulis sajak since that every day ISG write poem ‘Since that time, I have been writing poems every day.’ (Bungklang Bungkling 2008:23)

Another distinction between uli/uling and sekat/sasukat is evident when these temporal adverbials are followed by the word pidan. The marker influences the meaning of the word pidan, which literally means ‘a long time ago’. Example (20) shows that when it is preceded by the preposition sekat, it forms question phrase sekat pidan ‘since when’.

(20) Sekat pidan konyangan krama Bali-né dadi pemulung since when all citizen Bali-POS S became scavengers ‘Since when have all the Balinese become scavengers?’ (Bungklang Bungkling 2008:86)

Example (21) shows the meaning of pidan as ‘long time ago’ when preceded by uli and followed by suba ‘already’.

(21) Mémén Iluh-é uli pidan suba ngalahin luas mother-LIG NAME-POSS from long time ago already leave go ‘Iluh’s mother had left her a long time ago.’ (Ngurug Pasih 2014:8)

3.1.4 Temporal distance
Temporal distance in Balinese can be divided into two categories, namely, the future distance and the past distance. Both of them are related to their respective deictic meanings and can be measured in hours, days, weeks, months, and years. Qualitative periods, such as seasons, day-parts, days of the week, or calendar months in the calendar cannot be used since those periods are not measurable. The time unit that represents the temporal distance can be used together with either an anterior or posterior marker.

The future distance in Balinese is marked by the word buin ‘more’, whereas the past distance is marked by the word dugas. This word can be followed by the locative preposition di ‘when at’ or by a relative clause, sane suba liwat ‘which has gone’. The word dugas can take the definite suffix –é to form dugasé. The word dugas is also used as the marker for a simultaneous location in a different way. The temporal distance can only be represented by a measurable time period. This contrasts with the simultaneous location, which cannot be represented by a measurable time period.

Examples (22) and (23) show the semantic function of the future distance which is marked by the word buin ‘more’.

(22) Tusing lebian buin a-bulan lakar nasak not more than more one-month will ripe ‘Not more than a month (it) will ripen.’ (Belog 2014:5)

(23) Ulangan umum-e lakar teka buin a-bulan ené exam general-DEF will come more one-month this ‘The general exam will come within a month.’ (Belog 2014:19)
In example (24), *dugasé di* marks the reference time *telung bulan* ‘three months’ to show the semantic function of past distance. *Dugas* ‘when’ is used only for that reference time, which shows something in the past. That is, the adverbial phrase *dugasé di telung bulan* ‘at a time three months ago’ can be understood as something which has happened in the past.

Another marker for ‘past distance’ is *sane suba liwat* ‘which has passed’. This can be seen in example (25) below with the adverbial phrase *atiban sane suba liwat* ‘a year which has passed’.

### 3.2 Temporal extent

The temporal extent can be divided into three functions, namely, atelic extent, telic extent, and distance posterior (Haspelmath 1997:38-42). Only a measurable durative reference time can be used to show this temporal extent. Durative expressions such as ‘a long time’, ‘just a moment’, and the like, cannot be used to show this semantic function.

#### 3.2.1 Atelic extent

This function is marked by the adverb *suba* ‘already’ (or *ba* in its shortened form). This adverb can be combined with the verb *ada* ‘exist’ for the low register. For high-register Balinese, the adverb *sampun* ‘already’ can be paired with the verb *wenten* ‘exist’. The presence of each marker for every pair is optional. For instance, the word *suba/ba* is usually combined with the verb *ada*, but this does not mean that when *suba/ba* is used, the verb *ada* must be used too. If the position of the phrase which expresses the ‘aticle extent’ function is in the beginning of the clause, a measurable canonical time period can be marked by *suba/ba* with or without the verb *ada* ‘exist’, or conversely, it can be marked by *ada* with or without *suba/ba*. Examples of this can be seen in (26a-c).

(26) a. **Suba ada telung tiban** Made Budi ma-gaé di tongos-é ento
already exist three years NAME MA-work LOC place-DEF that
‘Made Budi has been working at that place for three years.’ (Belog 2014:34)

b. **Suba telung tiban** Made Budi magaé di tongosé ento
‘Made Budi worked at that place for three years.’

c. **Ada telung tiban** Made Budi magaé di tongosé ento
‘Made Budi worked at that place for three years.’

Example (26a) shows that the combination of the adverb *suba* ‘already’ and *ada* ‘exist’ is attested. In example (26b), only the adverbial *suba* ‘already’ is used, while in (26c), only the verb *ada* ‘exist’ is used. If the position of the phrase is not in the initial position of the clause, the adverbial *suba/ba* must be used as the only marker of atelic extent, as can be seen in examples (27a), (27b), and (27c). Only example (27a) is grammatical because it only uses the word *suba* as the marker. Examples (27b) and (27c) are ungrammatical because they use *ada* ‘exist’ as the marker.
(27) a. \textit{ia suba telung dasa tiban dadi jlema lacur}  \\
\text{3SG already three ten years become person poor}  \\
‘He has been a poor person for thirty years.’ (Bungklang Bungkling 2008:110)

b. *\textit{ia ada telung dasa tiban dadi jlema lacur}

c. *\textit{ia suba ada telung dasa tiban dadi jlema lacur}

\textit{Suba} ‘already’ can appear in the end of the phrase to express the ‘atelic extent’ function. An example of this can be seen in (28).

(28) \textit{Petang dina suba Kadék Santi tusing magaé}  \\
\text{four days already NAME not MA-work}  \\
‘Kadék Santi hasn’t worked for four days.’ (Belog 2014:45)

The above rule can also be applied to the high-style forms \textit{sampun} ‘already’ and \textit{wenten} ‘exist’. The following data in (29) is an example for the use of \textit{sampun}.

(29) \textit{Sampun limang rahina I Kaki Dengkil nenten medal saking kubon-ipun-né}  \\
\text{already five days ART NAME not go.out from house-3SG-POSS}  \\
‘Kaki Dengkil did not go out from his house for five days.’ (Bali Orti, June 16\textsuperscript{th}, 2013:17)

3.2.2 Telic extent

The telic extent function indicates the length of time taken for a bounded situation to be completed. In English, this function is marked by the preposition \textit{in}, but in Balinese, this function has no a particular marker like a preposition. It is realized only by a measurable canonical time period.

(30) \textit{Kurenan-ne luluran duang jam di salon}  \\
\text{spouse-POSS scrub two hours LOC salon}  \\
‘His wife scrubbed at the salon for two hours.’ (Bungklang Bungkling 2008:32)

The example in (30) shows that there is no marker for the reference time. In this case, the reference time \textit{duang jam} is realized as a measurable canonical time period. The clause shows that the activity (\textit{luluran} ‘scrubbing’) has taken two hours to complete and it has an end point. For examples (31) and (32), we cannot say that the activity has been completed or not, but it can be interpreted that it has taken a certain time to do the activities mentioned in the clause.

(31) \textit{Payu I Kadek telung dina sing maan pis roko}  \\
\text{finally ART NAME three days not get money cigarette}  \\
‘Finally Kadek did not get money for his cigarettes for three days.’  \\
(Bungklang Bungkling 2008:100)

(32) \textit{Payu tipi-né kagadé duang minggu anggo modal nyetok tuak}  \\
\text{finally TV-DEF pawned two weeks use expense supply palm.wine}  \\
‘Finally, The TV has been pawned for two weeks for the palm wine supply expense.’  \\
(Bungklang Bungkling 2008:89)

As can be seen in examples (30), (31), and (32), telic extent in Balinese is lexically unmarked, but the English translation highlights it lexically with ‘for’.

3.2.3 Distance posterior

The distance posterior function looks similar to the posterior function. The difference between these two functions is on the reference time that is used to express each of these functions. The reference time for the
distance posterior function must be a measurable canonical time period which has a time unit, but the posterior function is expressed by a reference time which is not measurable.

In Balinese, this function is marked by the words *suba uli* ‘already since’. The phrase *suba uli di nem bulan* ‘already since six months ago’ in example (33) is used to express a distance posterior function.

(33) **Suba uli di nem bulan** pianak-né ento nagh
already since LOC six months child-POSS that ask
apang beli baju seragam sekolah ané anyar
in order to buy uniform school which new

‘Her son has already asked her six months ago to buy a new uniform for him.’ (Belog 2014:36)

In example (33) above, the ‘distance posterior’ function is marked by *suba uli di* ‘already since at’, and the reference time is *nem bulan* ‘six months’.

### 3.3 Frequency

The frequency function can be divided into three categories. Those are quantifying frequency, cardinal frequency, and proportional frequency (Pan 2010). The proportional frequency can be classified into three sub-categories: high frequency, medial frequency, and low frequency. Each of these categories will be explained below.

#### 3.3.1 Quantifying frequency

The quantifying frequency expressions refer to the temporal notions which quantify distinguished time spans on a time axis. In English, this function is marked by the words such as *every*, *most*, and *some*. (Pan 2010:118).

In Balinese, the quantifying frequency function is marked by the words *sabilang* ‘every’ (low register) and *sanunggil/satunggil* ‘every’ (high register). These words are combined with a canonical time period or another situation that refers to a specific time.

The use of *sabilang* can be seen in examples (34) — to (36), while *sanunggil* can be seen in example (37) below.

(34) **Sabilang** semeng tiang ngepel, mersihin tain kuwir
Every morning 1SG wipe clean feces duck

‘I was wiping, cleaning up duck poop every morning.’ (Bali Orti, June 30th, 2013:17)

(35) **Bapa-n-né sabilang peteng mako kohan**
father-LIG-POSS every night cough

‘His/Her father was coughing every night.’ (Bali Orti, August 2nd, 2015:17)

(36) **Sabilang nepukin anak mentas di rurung-é, ia setata ngepungin**
Every see person pass LOC street-DEF 3SG always chase

‘Every time s/he saw people passing in the street, s/he always gave chase.’ (Ngurug Pasih 2014:1)

(37) **Sanunggil soré malih malajah ring genah sané kabaos**
every afternoon again learn LOC place which PAS-call

place tutoring lesson

‘Every afternoon (they) study again in a place called a tutoring room.’ (Bali Orti, July 13th, 2014:17)

In example (38), the word *sabilang* ‘every’ is followed by the word *wai* ‘day, which forms the expression *sabilang wai* ‘everyday’. This meaning can also be represented by the word *sawai* as in example (39). The word *sawai* is formed by attaching the prefix *sa-* to the word *wai* ‘day’. Both *sabilang wai* and *sawai* have the same meaning, ‘everyday’.
(38) Sabilang wai gegina-né ngarit di sisi-n pangkung-é
Every day work-POSS cut.grass.with.sickle LOC edge-POSS ravine
‘Everyday he cut the grass at the edge with a sickle’ (Bali Orti, May 25th, 2014:17)

(39) Ia sa-wai ngamélémél padidian di jalan-né
3SG SA-day grumble alone LOC street-DEF
‘He grumbles alone everyday on the street.’ (Ngurug Pasih 2014:1)

The prefix sa- in sawai ‘everyday’ has the same meaning as the word sabilang ‘every’, but this prefix
only attaches to word wai ‘day’ (low register) or rahina ‘day’ (high register), while the word sabilang can
precede any reference time, both quantitative and qualitative.

Another morphological process that can be used to mark this function is the nasalisation process. An
easample is given in (40).

(40) Ia nglemeng ngayah dadi pragina arja.
3SG N-night  serve become dancer Balinese.opera
‘He performs as an arja dancer every night.’ (Ngurug Pasih 2014:2)

The word nglemeng is a verb, which is derived from the noun lemeng ‘night’. Prefix ng-, which is
attached to it changes the meaning of the word ‘night’ into ‘every night’. The affixation process that brings
the same meaning with this can be seen in the words such as ngwai ‘everyday’ (low register) and ngrahina
‘everyday’ (high register).

3.3.2 Cardinal frequency
Cardinal frequency functions denote absolute quantities of an instance of a particular event, activity, process,
or state that occur or happen in distinguished time spans on the time axis. In English, these functions are
marked by ‘once, twice, ten times (Pan 2010:121).

Balinese has similar expressions similar to those in English. This function is commonly marked by the
word ping/pang ‘times’ followed by numerals. An example of the use of ping/pang can be seen in (41).

(41) Timpal-timpal-é ba ngiterin lapangan ping pat,
friend-REDUP-DEF already go around field times four
tiang nu nyéndéh di rombong dagang kacang ijo-né
1SG still lean LOC wagon seller green beans-DEF
‘My friends have already gone around the field for four times, but I was still leaning on the wagon of
the green bean drink seller.’ (Bungklang Bungkling 2008:22)

To express meanings such as ‘once’ and ‘twice’ in English, Balinese use specific words such as cepok
‘once’ and pindo ‘twice’. Though cepok and pindo are both independent words and each word brings ‘time’
meaning in itself, the word cepok is sometimes preceded by ping ‘times’. Another piece of evidence shows
that cepok can be used with the prefix a- ‘one’ to emphasize its meaning. This can be seen in example (42).

(42) Suba lebih-an tekén ping dasa ia ngebél,
already more than times ten 3SG phone call
nanging acepok dogén tusing ada ané nyemak
but a-once only not exist which take
‘It was more than ten times that s/he made phone calls, but nobody answered it, not even for one
time.’ (Belog 2014:44)

3.3.3 Proportional frequency (high, medial, low)
The proportional frequency function refers to a temporal notion, which has a relative quantity of
distinguished time spans on the time axis. This function can be differentiated into three levels of frequency,
which are high, medial, and low (Pan 2010). Each level has its own specific words to describe its meaning. In English, there are words such as all the time, eternally, permanently, and forever for high frequency; often, usually, frequently, and gradually for medial frequency; and sometimes, at times, and occasionally for the low frequency.

In Balinese, high-level frequency is usually marked by the word setata ‘always’ or by the following combination: [pragat Verb dogen] ‘finish~only’. The use of these markers can be seen in examples (43) and (44).

(43)  Sajak-sajak-né setata ngaé anak ngeling sigsigan
     poem-REDUP-POSS always made people cry sobbing
     ‘His/Her poems always made people sob.’ (Bungklang Bungkling 2008:23)

(44)  Suba ping lima ngantén, pragat nganten dogén
     already times five marry finish marry only
     ‘He has already got married five times, but he always wants to get married.’ (Ngurug Pasih 2014:57)

The words such as sesai ‘often’ and busan-busan ‘frequently’ are used to mark events of medial proportional frequency. The use of sesai and busan-busan can be seen in examples (45) and (46), respectively.

(45)  Cucuné sesai ngambul
     grandson-POSS often become.cranky
     ‘His grandson often got cranky.’ (Ngurug Pasih 2014:71)

(46)  Busan-busan ngajak anak muani ené, buin kesep-né
     frequently with person male this, again while-POSS
     ngajak anak muani ento
     with person male that
     ‘She was frequently with this boy, but after that she was with another boy.’ (Belog 2014:15)

The low level of proportional frequency is marked by the word kapah ‘rarely’, as seen in example (47).

(47)  Dék Agus kapah nepukin anak ramé apabuin nepukin
     NAME rarely see people crowded moreover see
     balih-balihan cara jani
     performance like now
     ‘Dek Agus rarely saw the crowds of people, moreover seeing the performance like this time.’
     (Ngurug Pasih 2014:70)

3.4 Miscellaneous
As mentioned in the section 2, this study tries to use both classifications of ‘other semantic functions’ proposed by Haspelmath (1997) and ‘miscellaneous semantic functions’ proposed by Pan (2010). The regular recurrent semantic function proposed by Haspelmath (1997) is not described here because it has been included under the description of quantifying frequency. Hence, the miscellaneous semantic functions that will be discussed in this study are ‘approximative’, ‘perdurative’, ‘durational’, ‘punctual’, ‘sequential’, ‘repetitive’, ‘medial’, and ‘purposive extent’.

3.4.1 Approximative
Some examples in English for describing this approximative function are toward noon and around ten o’clock. Words such as ‘toward’ and ‘around’ are the markers for this function. In Balinese, this function is marked by several words such as paek ‘near’, sawetara ‘around’, makire ‘almost’, mapag ‘toward’, mekén ‘nearly’. In example (48), paek ‘near’ is followed by rerainan ‘holy day’ as the reference time.
3.4.2 Perdurative

Perdurative functions represent the meaning of ‘throughout’ in English. In Balinese, this semantic function is limited only to part of the day. This function is marked by the circumfix \textit{a-} – \textit{an}, which is attached only to the words \textit{wai} ‘day’ and \textit{peteng} ‘night’ as canonical time periods for parts of the day.

In examples (52) and (53), we can see the ‘perdurative’ semantic function, which is represented by the words \textit{awaian} and \textit{apetengan} respectively.

(52) \textit{Ia} tuah bisa ngeling \textit{awaian}  
3SG only can cry throughout the day  
‘All that she can do is just crying all through the day.’ (Belog 2014:16)

(53) \textit{Apetengan} di kafé nguberin pipi  
Throughout the night LOC café chase cheek
‘Throughout the night (they are) chasing for woman at the café.’ (Bungklang Bungkling 2008:68)

3.4.3 Durational

Durational temporal expressions describe the duration of a particular event, activity, process, or state. This expression looks similar to the atelic extent, but their time spans are different. The durational temporal expressions do not specify any definite quantifiable time period, whereas the atelic extent does. (Pan, 2010:131)

In Balinese, these expressions can be represented by the words such as \textit{makelo} ‘long time’ (low register), \textit{sue} ‘long time’ (high register), \textit{kejep} ‘just a moment; for a while’ (low register), \textit{jebos} ‘just a moment; for a while’ (high register). These words show a qualitative durational meaning, where the duration is not represented by a definite quantifiable time period. Note that the word \textit{kejep} and \textit{jebos} can be prefixed by \textit{a-}. 

In examples (54), (55), and (56), we can see the use of *akejep*, *makelo*, and *ajebos* respectively.

(54) *Man cang masuk akejep mémé-n icang-é*

get 1SG go to school for a while mother-POSS 1SG-DEF

*I once went to school for a while – my mother pushed me to – after that I immediately dropped out.*

(Bungklang Bungkling 2008:33)

(55) *Tiang suba makelo ngantosang jumah*

1SG already for a long time wait at-home

*I have been waiting for so long at home.* (Ngurug Pasih 2014:57)

(56) *Tiang lakar melali ajebos Bu*

1SG will go play momentarily Mom

*I will go playing for a while, Mom.* (Belog 2014:27)

3.4.4 Punctual

Punctual temporal expressions describe a punctual or moment point of a particular situation. Some examples in English are *just*, *just now*, *soon*, and *suddenly* (Pan, 2010:133). In Balinese, this semantic function is represented by words such as *mara sajan* ‘just now’, *sagét* ‘suddenly’, and *prajani* ‘suddenly right now’.

This ‘punctual’ semantic function in the example (57) is represented by the phrase *mara sajan* ‘just now’, while in the example (58), it is represented by the word *sagét* ‘suddenly’.

(57) *I Wayan mara sajan dadi pimpro upacara*

ART NAME just now become project.leader ceremony

*ngantén adi-n-né*

wedding young.brother/sister-LIG-POSS

*Wayan was the ‘project leader’ of his young brother/sister’s wedding ceremony in a short while ago.* (Bungklang Bungkling 2008:70)

(58) *Ané mara gelem awai sagét suba ngalahin*

Which just sick a day suddenly already leave

*(Person) who is just sick for one day, suddenly had passed away.* (Belog 2014:20)

3.4.5 Sequential

This expression describes some situations which occur as being temporally sequential. In English, this situation can be represented by words such as *early*, *late*, *successively*, *in turn*, and *by turn* (Pan, 2010:135-7). Some words which can be used to represent this situation in Balinese are *sakabesik* ‘one by one’, *selegenti* ‘in turn’, *malunan* ‘first’, *durinan* ‘later’, *selidan* ‘earlier’, *sanjaan* ‘later in the evening’, among others.

In example (59), this semantic function is represented by the word *selidan* ‘earlier’, while in example (60) this is represented by the word *malunan* ‘first’.

(59) *Liu nu Yan? Dadi mulih selidan*

A lot still NAME? why go home earlier?

*‘Are there still a lot, Yan? Why did you come home earlier?’ (Bali Orti, August 2nd, 2015:17)*

(60) *Pulu Wira macelep malunan ka natah-né Jero Balian-é*

NAME get in first to yard-POSS ART healer-DEF

*‘Putu Wira got in first to the yard of the house of the healer.’ (Belog 2014:24)*
3.4.6 Repetitive
Repetitive temporal expressions describe the repetitive occurrence of a situation. This expression is shown by the words such as again, also, and repeatedly in English (Pan, 2010:137).

In Balinese, this expression can be marked by the words such as buin ‘again’ (low register), malih ‘again’ (high register), masih ‘also’, ping kuda-kuda ‘repeatedly’, ping satak keti ‘for so many times’. This function is represented by the word malih ‘again’ in example (61).

(61) Usan ngajengang sami raris malih ngalanturang pamarginé
finish eat everybody then again continue trip-DEF
‘After eating, then everybody continues their trip again.’ (Bali Orti, June 9th, 2013:7)

3.4.7 Medial
The medial semantic function is a way of locating a situation between two time references (Haspelmath 1997:47). In Balinese, this semantic function is marked by a prepositional phrase di selagan ‘between’ as seen in example (62).

(62) I meme lakar ke Jakarta di selagan Galungan
ART mother will to Jakarta at between FESTIVAL
ajak Kuningan-é and FESTIVAL-DEF
‘Mother will go to Jakarta between Galungan and the Kuningan.’

This examples was obtained made through elicitation because this kind of data does not appear in text and the word selagan ‘between’ tends to be replaced by Indonesian word antara ‘between’ in daily conversation.

3.4.8 Purposive Extent
In English, the purposive extent semantic function is marked by the preposition for as a purposive marker. Basically, this semantic function denotes the definition as follows: “in order to preserve the effect of the action for (x time units)” (Haspelmath 1997:48). He noted that the example ‘I borrowed the book for two months’ means ‘I borrowed the book in order to keep it (=preserve the effect of borrowing) for two months’. Examples of this semantic function in Balinese are given in (63) and (64).

(63) Ia luas ke Jepang duang bulan
3SG go to Japan two months
‘He/She went to Japan for two months.’

(64) Tiang nyilih buku-n-ne a-minggu
1SG borrow book-LIG-POSS one-week
‘I borrowed his/her book for a week.’

Examples for this semantic function were not found in data source. For the sake of data completeness, examples (63) and (64) were made using elicitation method. In Balinese, there is no specific marker for denoting this semantic function. In the example (63), the time unit, duang bulan ‘two months’, occurs without a preposition or it is not marked. The time unit in expressing purposive extent in (64) also occurs without marking.

4 Definiteness
The definite marker -é is a specific feature of Balinese compared to the other Austronesian languages in Indonesia (Shiohara and Artawa 2015:1). This definite marker occurs not only in words filling the temporal adverbial function as the reference time but also in certain temporal adverbial markers. Consider the following data in Balinese.
A perfect example for definiteness in temporal adverbial should consist of a marker and a specific lexical time word, which shows a certain temporal expression. Unfortunately, this kind of data was not found in the data source. Therefore, in order to show this function in Balinese, example (65) was made through elicitation method.

In example (65a) the definite marker -é is attached to the word galungan as the reference time, which is marked by the simultaneous location marker dugas ‘on’, while in the (65b), the definite marker -é is attached to the marker dugas ‘on’. Both clauses are grammatical and have the same meaning. The example in (65a) causes a little confusion because the preposition in general and in Balinese cannot be marked by a definite maker. It is clear that it is not a preposition; it is perhaps a noun indicating the time in the past. Then, this can host a definite marker. The possible literal translation of (65b) in English is as follows: “the time was Galungan when s/he came.”

If the reference time is represented by a clause, then the only way to show the definiteness of the temporal adverbial is by attaching the definite marker to the marker, dugas. The example of this case can be seen in example (66).

(66) a. Tiang panyaman Luh-é dugas-é ajak lekad ipidan
1SG sibling 2SG-DEF when PAST-DEF with born in former time
‘I am your sibling when we were born in a former time.’ (Bali Orti, March 8th, 2015:17)

b. * Tiang panyaman Luh-é dugas ajak lekad ipidan-é
1SG sibling 2SG-DEF when PAST with born in former time-DEF

The marker dugas is used to express the situation which occurred in the past. It usually precedes the situation as the reference time of another situation in a sentence. If the situation will happen in the future, the marker is not dugas, but kayang. Both of them have the same rule for definiteness.

5 Conclusion
Temporal adverbials in Balinese have several types of markers. The same semantic function can be marked by several different markers depending on the situation expressed in the utterances. Every situation must be expressed by a different marker because there is no verb conjugation in Balinese showing tense or aspect. Several markers bring deictic meanings, which help us understand whether a particular situation has occurred in the past or will happen in the future.

Balinese speech levels play an important role in deciding which marker is appropriate for a certain situation. The decision can be done according to the words used to construct the clause or the sentence. If the clauses are composed of the lexical items, which are classified into high-register speech, the marker must be from the high-register speech category as well.

Another important point in Balinese temporal adverbial marking is the notion of definiteness. Definiteness in Balinese does not just occur on the linguistic unit of a particular temporal adverbial, but it also occurs on the marker itself, especially for temporal adverbials, which indicate a situation as the reference time.

ACKNOWLEDGEMENT
I would like to thank the Ministry of Research, Technology, and Higher Education of the Republic of Indonesia for giving me the doctoral dissertation research grant. This paper is a part of the research funded
by the grant. I also would like to thank to Edmundo Luna, who has help me edit the English language of the paper’s draft.

ABBREVIATION

1SG : 1st person singular
2SG : 2nd person singular
3SG : 3rd person singular
ART : article
DEF : definite
DEM : demonstrative pronoun
EXP : experiential
FUT : future
LIG : ligature
LOC : locative
N : nasalized
NEG : negative
PASS : passive
PAST : past time
POSS : possessive
REDUP: reduplication

References


**Data Sources**


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**Reviewed**: Received 16 May 2018, revised text accepted 1 August 2018, published 10 December 2018

**Editors**: Editor-In-Chief Dr Mark Alves | Managing Eds. Dr Paul Sidwell, Dr Nathan Hill, Dr Sigrid Lew