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# Information structure in Kadorih

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## 1. Overview

The aim of this paper is to look into the information structure of Kadorih, an Austronesian language which belongs to the Barito group. To be more precise, Kadorih is a dialect of Ot Danum, which is spoken by approximately 11,000 people in the upper reaches of Kahayan River in Central Kalimantan, Indonesia. The information structure in Barito languages has been hardly described to date. In this paper, the formal and communicative aspects of information structure of Kadorih will be analyzed within the framework proposed by Chafe (1976), Prince (1981), Lambrecht (1994) and others.

After a brief overview presented in this part, section 2 discusses prosodic properties which signal information structure. Subsequently, constructions such as topic-comment, entity-introducing, event-reporting and identification are analyzed from the pragmatic perspective (section 3), and the correlations between formal coding and information status of discourse referent are discussed (section 4). Section 5 summarizes the issues discussed in this paper.

Kadorih has no phonological or morphosyntactic coding (except for pronominals and demonstratives) which would directly indicate identifiability or activation state of discourse referents. However, entity-introducing constructions which involve a limited set of predicates (section 3.2) indirectly indicate that the introduced referents have the status of “new” or unidentifiable at the time of utterance. Entity-introducing constructions in Kadorih involve an existential *tohko*, a demonstrative *anai*, or a verb *lombut* ‘come’ being placed in the sentence-initial position. Needless to say, unidentifiable referents are not necessarily introduced by entity-introducing constructions. On the other hand, topic and focus relations can be expressed at the prosodic or syntactic level of sentences (section 2 and 3.1). Focus relations can also be expressed by constructions of topic-comment type with predicate-focus structure, entity-introducing or event-reporting type constructions with sentence-focus structure, and identification type having argument-focus structure. Identificational constructions in Kadorih can be called cleft constructions.

## 2. The role of prosody

Accent, intonation, pause and rhythm have been regarded in the literature as formal properties which crucially relate to understanding of a sentence in terms of information structure. This section illustrates such prosodic properties which can be used for organizing utterance as the communicative unit. There are two kinds of prosodic strategies: directly (2.1) and indirectly (2.2) relating to information structure.

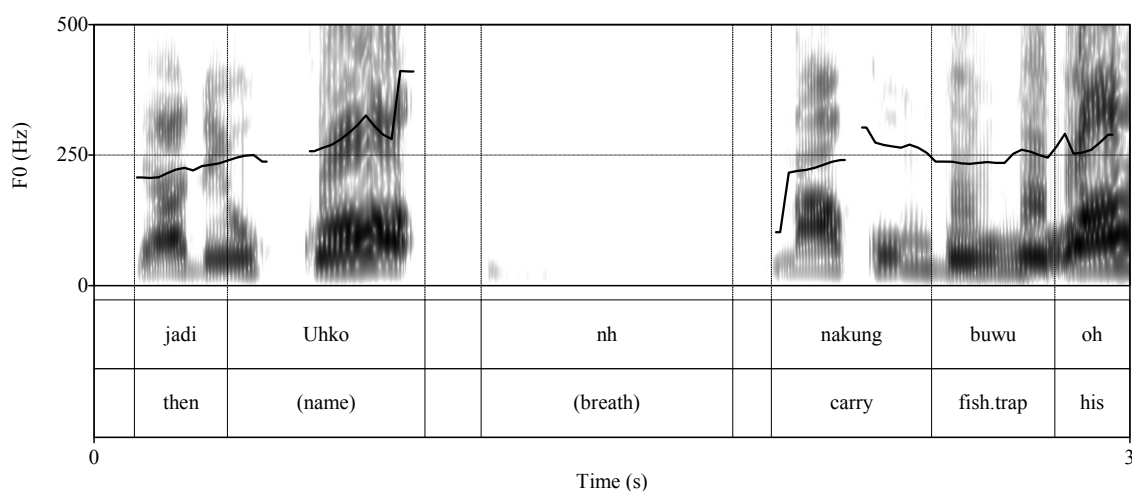
### 2.1 Prosodic properties directly signaling information structure

In Kadorih, some prosodic properties can by themselves indicate the information structure of a sentence. The topic-comment construction of the extract (1) is part of a clause uttered

immediately after introducing the main character *Uhko* ‘(person’s name)’ in the story. It consists of a discourse connective *jadi*, an argument *Uhko*, and a predicate *nakung buwu=oh*. Notice, incidentally, that (1) does not contain any prosodic notation so that it is compared with the version with unmarked word order, *jadi Uhko nakung buwu=oh*.

- (1) *jadi Uhko nakung buwu=oh ...*  
 then (name) carry fish.trap=his  
 ‘Then, Uhko carries his fish trap, ...’

What makes this clause a topic-comment construction are two prosodic properties, that is, pause and pitch. Figure 1 shows an acoustic analysis of the extract (1). It contains the spectrogram in the upper part, the fundamental frequency contour (F0 contour) superimposed on the spectrogram, and at the bottom, the annotation of the tokens and their glosses.



**Figure 1. Acoustic analysis of topic-indicating pitch and pause**

The topic argument *Uhko* is followed by a “juncture pause” (Laver 1994: 537–38) with long breath, which can be easily identified by looking at the long gap between *Uhko* and *nakung*, the duration of which is about 1,000 ms. The length of this gap is comparable with that of the phrase *jadi Uhko* (840 ms) and the second one *nakung buwu=oh* (930 ms). The intentional use of such a juncture pause (not “hesitation pause”) is not observed after a non-topic argument.

Moreover, from the fundamental frequency contour shown in Figure 1, it can be seen that the topic argument *Uhko* is pronounced with a salient rising pitch. While the average F0 value of this whole extract is about 254Hz, F0 value of the portion of the topic argument rises by between 257Hz and 427Hz.

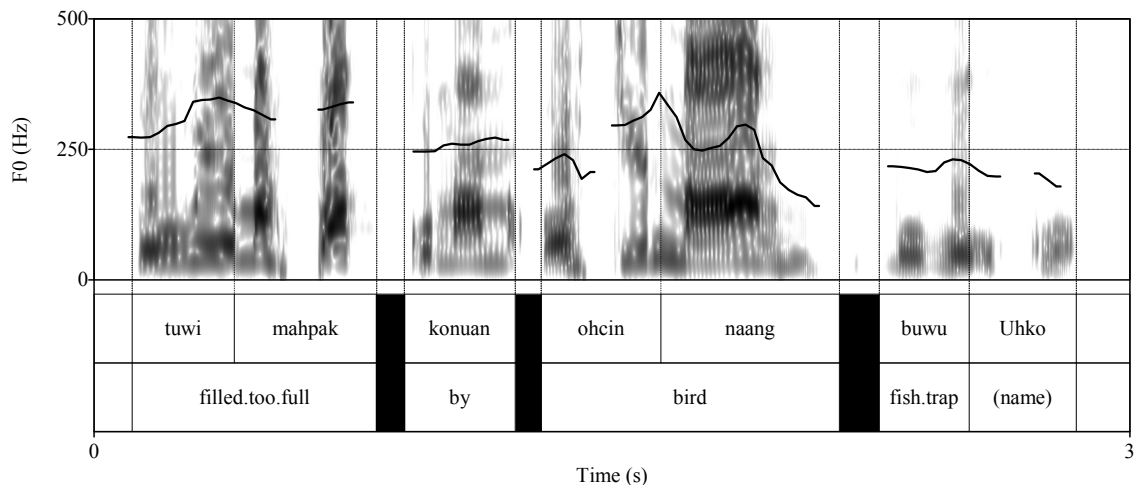
Of course these prosodic characteristics are often observed for other kinds of expressions in Kadorih. However, a sentence-initial argument (with preposing a discourse connective as in (1)) is the topic argument of the sentence whenever it bears a rising pitch and is followed by a relatively long juncture pause. These prosodic clues of pitch and pause, with the support of semantico-syntactic clues for determining the argument in a sentence, greatly contribute to the hearer’s interpretation of the topic-comment structure and of the context in which the sentence is uttered. Therefore, prosodic properties can be the direct or primary formal indicator of information structure of Kadorih.

## 2.2 Prosodic properties indirectly signaling information structure

Subsection 2.1 demonstrated that prosodic properties alone can be the indicator of information structure. On the other hand, certain prosodic properties may be just involved when a particular construction which signals information structure by itself is uttered. The extract (2) shows an appended construction or comment-topic construction where the topic/subject argument *buwu Uhko* is moved rightward from the pre-predicate position without any resumptive pronominal form. The canonical counterpart of this extract is [*buwu Uhko*] [*tuwi mahpak*] [*konuan ohcin naang*] where subject, predicate, and adjunct are alligned in this order.

- (2) *tuwi mahpak konuan ohcin naang, buwu Uhko.*  
 filled.too.full by bird fish.trap (name)  
 ‘[It is] full of birds, Uhko’s fish trap.’

What makes this sentence a comment-topic construction is syntactic rightward movement of a subject argument and appending the argument to its predicate. However, pitch and, possibly, pause play a supplementary role to signal that the appended argument is the topic expression of the sentence. Figure 2 shows an acoustic analysis of (2).



**Figure 2. Acoustic analysis of an appended construction**

The last phonological word of the comment part *naang* is pronounced as [nàáŋ] with rising-falling pitch contour. This can be confirmed by looking at the F0 value for the portion of *naang* in Figure 2. F0 value stays at around 250 Hz for the first vowel [a], rises up to 300 Hz for the second [a], and at the end of this word, it falls to 105 Hz, the lowest value of this whole extract. Particularly, this kind of falling is the one often observed at the end of an affirmative sentence. In other words, the sentence-final falling pitch is used in the middle of this sentence although in this extract it does not function to indicate the boundary of a sentence. Additionally, the topic argument *buwu Uhko* bears a relatively flat pitch, no falling such as sentence-final falling or no rising as already seen for the topic argument in (1).

On the other hand, the preceding comment part *tuwi mahpak konuan ohcin naang* is linked with the topic argument via perceptible intervening pause. In Figure 2, the duration of this pause, i.e. the last gap between *naang* and *buwu* is 115ms, whereas the first two gaps, especially the second gap is 77ms. These facts seem to indicate only slight difference in duration between them but it can be said that the last gap has sufficient length for pause considering the utterance speed. While the extract (1) contains 3 syllables per second, (2) has 5 syllables per second. Moreover, the acoustic cue of lowered fundamental frequency at the

end of the comment part, which is mentioned above, helps an addressee to percept the intervening gap as the boundary between the comment part and the topic argument.

A final falling at the end of comment part, a flat pitch on topic arguments, and a perceptible intervening pause may reinforce a comment-topic relation which is indicated mainly by appended constructions. Therefore, prosodic properties can be the indirect or secondary formal indicator of information structure.

In Kadorih, a focus relation may also be indirectly indicated by prosodic properties but it is rare that prosodic properties by themselves indicate this kind of pragmatic relation.

### 3. Information-signaling constructions

This section deals with a number of constructions which signal information structure of Kadorih, such as topic-comment, entity-introducing, event-reporting, and identificational constructions.

#### 3.1 Topic-comment and comment-topic constructions

As we have seen in the previous section, topic-comment and comment-topic constructions in Kadorih may be coupled with specific prosody, namely pitch and pause. By definition, a constituent is regarded as a topic expression “if the proposition expressed by the clause [...] is pragmatically construed as conveying information about the referent of the constituent”<sup>1</sup> (Lambrecht 1994: 131), and the information conveyed is expressed by the comment part.

In (3a) and (3b), the information structures of (1) and (2) are schematically represented. The pragmatic presuppositions evoked by each preceding discourse are that ‘Uhko’ in (1) and ‘Uhko’s fish trap’ in (2) are available as the topic for each narrative. On the other hand, the pragmatic assertions made by uttering these sentences are the establishment of aboutness relations between entities denoted by topic expressions and events denoted by the comment parts.

- |        |                           |   |
|--------|---------------------------|---|
| (3) a. | Sentence:                 | <i>(jadi) Uhko, nakung buwu=oh,</i>               |
|        | Pragmatic presupposition: | <i>Uhko</i> is a topic for comment x              |
|        | Pragmatic assertion:      | x = carry Uhko’s fish trap                        |
| b.     | Sentence:                 | <i>tuwi mahpak kanuan ohcin naang, buwu Uhko.</i> |
|        | Pragmatic presupposition: | Uhko’s fish trap is a topic for comment x         |
|        | Pragmatic assertion:      | x = be full with birds                            |

The extracts in (4) are another kind of topic-comment and comment-topic constructions respectively. When the storyteller pronounced these sentences, (4a) involved the prosodic properties described in the section 2.1 whereas (4b) involved no specific prosody.

- (4) a. (From 2001 until 2002, here was a man from Tumbang Tuwe, Rungan River. The one who came to Tumbang Bolihkoi for treatment.)
- |                  |             |             |                |                  |                |
|------------------|-------------|-------------|----------------|------------------|----------------|
| [ <sub>TOP</sub> | <i>aran</i> | <i>ulun</i> | <i>orih</i> ], | [ <sub>CMT</sub> | <i>Liun</i> ]. |
|                  | name        | human       | that           |                  | (name)         |
- ‘That man’s name was Liun’.

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<sup>1</sup> “Topic” or “theme” has sometimes been characterized metaphorically as “it were the peg on which the message is hung” (Halliday 1970: 161, as well as the “point of departure for the message” (p. 162)) or “the hitching post for the new knowledge” (Chafe 1976: 44).

- b. (Then, amai Busun departed for Tumbang Tuwe (from Tumbang Bolihkoi).)  
 [CMT *ko-duo ondou ko-duo ngolomi*] [TOP *k-ahcu-i*].  
 total-two day total-two night (abstract.noun)-(far)-3sg.POSS  
 ‘The distance, (it took) two whole days’.

In (4a), the phrase *aran ulun orih* ‘the man’s name’ is the topic expression and the proper name *Liun* is the comment part of this sentence. The preceding sentences in this passage introduced ‘the man’ into discourse, and after that, ‘the man’ becomes topical. At the same time, his name can also become topical because of the semantic frame evoked by the possessor noun *ulun orih* ‘that man’. On the other hand, the comment part ‘(was) *Liun*’ expresses information about the topic, which is new to the addressee (here: the one who is expected to hear this story). Therefore, (4a) is a topic-comment construction.

(4b) is a comment-topic or appended construction, which composed of the comment part *koduo ondou koduo ngolomi* ‘two whole days’ and the appended topic expression *kahcui* ‘its distance’. The preceding sentence sets two places ‘Tumbang Tuwe’ and ‘Tumbang Bolihkoi’ as topical. Additionally, the space and distance between these two places can also become topical. Here, the frame is evoked by the suffix *-i* which codes ‘the *space* between the two places’ as the ‘possessor’. Of course, the comment part ‘two whole days’ expresses information about the topic.

Notice that (4b) simply says that ‘the distance was two whole days’. The appended topic expression *kahcui* has little connection with the preceding elements. In other words, the referent of *kahcui* is only loosely associated with the proposition “it takes two whole days”. Normally, ‘the distance’ is commented by some other measured or calculated interval, for example, it can be compared with the distance between other places, or, in modern way, expressed in kilometers. Thus, the relation between the referent and the proposition will be only pragmatically construed. This kind of constructions can be called “unlinked topic construction” (Lambrecht 1994: 193).

For both topic-comment and comment-topic constructions, the order of a topic expression and a comment part can be reversed in the same context without any change in information structure. The elicited examples in (5) correspond to the utterances in (4).

- (5) a. [CMT *Liun*] [TOP *aran ulun orih*].<sup>2</sup>  
 ‘The man’s name was *Liun*’.  
 b. [TOP *kahcui*], [CMT *koduo ondou koduo ngolomi*].  
 ‘The distance, (it took) two whole days’.

Therefore, the pragmatic presupposition and assertion of (4) and (5) are the same in these two cases. (6) schematically represents the information structure of (4) and (5) with respect to their presupposition and assertion.

- |                           |  |
|---------------------------|--|
| (6) a. Sentence:          | <i>aran ulun orih, Liun.</i> or<br><i>Liun aran ulun orih.</i>                           |
| Pragmatic presupposition: | the man’s name is a topic for comment x  |
| Pragmatic assertion:      | x = <i>Liun</i>  |
| b. Sentence:              | <i>koduo ondou koduo ngolomi kahcui.</i> or<br><i>kahcui, koduo ondou koduo ngolomi.</i> |
| Pragmatic presupposition: | the distance is a topic for comment x  |
| Pragmatic assertion:      | x = two whole days   |

<sup>2</sup> More naturally, it will be said as *Liun ara-i* [(name) name-3sg.POSS] ‘His name was *Liun*’.

In Kadorih, two different topic expressions may occur in one sentence. (7a) shows the extract from a story, and (7b) is the elicited example in which the constituent order is changed.

- (7) a. (The nun saw that he would not be fully-healed. And the nun talked to the village people, “You village people, please help him, I can’t heal him anymore”)  
*ihco mahi nyaro ulun lowu ijo kani dohop,*  
 one even/either not.exist humah village **(relativizer) want help**  
 ‘As for someone who wanted to help, (among) village people, there was no such one’.
- b. *ijo kani dohop ihco mahi nyaro ulun lowu.*  
**(relativizer) want help** one even/either not.exist human village

In (7a/b), the subject argument of the sentence *ihco* ‘one’ and the predicate *nyaro* ‘not exist’ constitute the core clause *ihco mahi nyaro* ‘there is no one’. (7a/b) contains *nyaro* or possibly *ihco mahi nyaro* as the comment part. The postposed expression *ulun lowu ijo kani dohop* can be analyzed as a head and a relative clause meaning ‘village people who want to help’, but as suggested by the example (7b), this expression is composed of two parts, a noun phrase *ulun lowu* ‘(among) village people’ and a headless relative clause *ijo kani dohop* ‘someone who wants to help’. These two constituents in (7a) are unlinked topics, which have no anaphoric link with the preceding clause, and the comment part *ihco mahi nyaro* expresses an assertion about these two topics. Thus, (7a) is a kind of comment-topic construction.

In the story, the sentence in (7a) is followed by an identificational sentence (3.4) *amai Busun ijo kani* ‘It was amai Busun that wants’. Therefore, the main topic throughout the whole passage in (7a) is ‘someone who helps him’. On the other hand, for information about whether the referent of *amai Busun* is a member of the village people (*ulun lowu*), anyone who hears this story must obtain it from the text-external world because that information is not text-internally provided. This means that the referent of *ulun lowu* does not have the primary status of topic even though the sentence in (7a) is also about ‘(among) village people’.

The information structure of the sentence in (7) is represented in (8).

- (8) Sentence: *ihco mahi nyaro ulun lowu ijo kani dohop* or  
*ijo kani dohop ihco mahi nyaro ulun lowu*  
 Pragmatic presupposition: someone who helps him is a topic for comment x  
 Pragmatic sub-presupposition: ‘among the village people’ is a topic for comment x  
 Pragmatic assertion: x = there is no such one

Topic-comment as well as comment-topic constructions are used most frequently in Kadorih discourse. Lambrecht (1994: 132) generally assumes, taking into account psychological aspects of coherent discourse, that “subjects are UNMARKED TOPICS and that the topic-comment articulation is the UNMARKED PRAGMATIC SENTENCE ARTICULATION”. Thus, for example, if English speakers are exposed to a canonical sentence in English such as “The children went to school” without contextual or prosodic clues, they usually interpret this sentence as a topic-comment construction with conjuring up contexts in which a question like “What did the children do next?” is asked. In Kadorih too, topic-comment (or comment-topic) articulation is the unmarked pragmatic sentence articulation even if it was presented with no prosodic properties.

### 3.2 Entity-introducing constructions

Kadorih has presentational constructions involving a predicate such as an existential *tohko*, a locational demonstrative *anai* ‘there (far afield)’, an intransitive verb *lombut* ‘come’, or the

combination of these words. These constructions are usually used at the beginning of a story or when introducing a new entity in order to focus on the presence of the entity which is assumed to be unpredictable or non-recoverable for the addressee at the time of utterance.

The extract (9a) shows an entity-introducing construction which contains *tohko* as the predicate. It introduces the entity, that is, the referent of the noun phrase *ulun tahkan sungoi Rungan* ‘a man from Rungan River’. (9b) and (9c) are the elicited ones in which *tohko* is replaced by *anai* and *anai lombut*. As shown in (9d), in an entity-introducing construction, the grammatical constituent order must be [predicate-argument], not the one of [argument-predicate].

- (9) a. (At the beginning of a story)  
*tohko ulun tahkan sungoi Rungan*  
 exist human from river (name)  
 ‘There was a man from Rungan River’.  
 b. *anai ulun tahkan sungoi Rungan.* ‘There was a man from Rungan River’.  
 c. *anai lombut ulun tahkan sungoi Rungan.* ‘There came a man from Rungan River’.  
 d. \**ulun tahkan sungoi Rungan tohko/anai.*

While topic-comment constructions can undergo the syntactic order-reversing of the argument and the predicate, entity-introducing constructions cannot. Moreover, the former constructions may involve intervening pause between the argument and the predicate, the latter may not. Most importantly, they are also different with respect to information structure.

- (10) Sentence: *tohko/anai/anai lombut ulun tahkan sungoi Rungan.*  
 Pragmatic presupposition: (no presupposition)  
 Pragmatic assertion: there was/came a man from Rungan River

While in the former case it is pragmatically presupposed that the topic referent is expected to play a certain role in a proposition (see (6) and (8)), in the latter case nothing is pragmatically presupposed. In addition, while in the former case it is asserted that an aboutness relation is established between the topic referent and the action/state denoted by the predicate, in the latter case the assertion extends over the entire proposition.

The postposed matrix clause of the extract in (11a) is an entity-introducing construction which involves *lombut* ‘come’. In (11b) *lombut* is moved to the position following the noun phrase *anak palanduk* ‘kid chevrotain’ which denotes the entity introduced in (11a). The sharp symbol # indicates unacceptability on the discourse level.

- (11) a. (I went fishing. Then I saw that a rambutan tree bore a lot of fruits. So, I looked for some fallen fruits.)  
*beteng=ku jo=ngurah=ah, lombut anak palanduk.*  
 when=I (relativizer)=look.for=them **come child chevrotain**  
 ‘When I was looking for them, the kid chevrotain appeared’.  
 b. #*beteng=ku jo=ngurah=ah, anak palanduk lombut.*

The elicited example in (11b) is only a topic-comment construction, in which the topic referent is denoted by the NP *anak palanduk*. However, this referent has not yet been introduced in the preceding context and not yet been topical. Thus, this is the reason why the sentence in (11b) is regarded as unacceptable. If the speaker uttered this sentence in the original context, it should be understood as if he had made an appointment with *anak palanduk*.



The existential *tohko* also functions as an indicator of resultative perfect aspect which entails relevance to the resultant existence of an entity (Inagaki 2013: 108–109). Interestingly, this aspect indicator is often utilized for making up a predicate which introduces an entity. Accordingly, this predicate functions as the comment part of a larger topic-comment construction. Such an example is shown in (12).

- (12) (On that day **I** didn’t meet anyone, **I** was lost. So, it got dark again, and **I** slept in the jungle (again) anyway. **I** haven’t met anyone for three days. **My** stomach was empty but there was nothing to eat.)  
 [TOP *ahku*] [CMT *tohko nyombang=ih, duo kungan kolop*].  
 I exist find=just two (classifier) tortoise  
 ‘I just found two tortoises’  
 (because I had been traveling down a river. This river I don’t know. A small river. So, it seemed to me that **those tortoises** were mating in the river. Right away I smashed **them, the two tortoises**. I got both of **the tortoises**.)

The entity in question here is the referent of *duo kungan kolop* ‘two tortoises’. Notice that the previous context before the sentence in (12) is about ‘my wandering in a jungle’ and ‘I’. Notice also that ‘two tortoises’ has not yet been introduced in the previous context. After uttering the sentence in (12), with an intervening sentences which touch on the river, ‘two tortoises’ becomes topical and is coded by a pronominal element ‘them’. Therefore, it is obvious that the storyteller uses the predicate containing the aspect indicator *tohko* and a noun phrase *duo kungan kolop* in order to introduce the entity denoted by the noun phrase.

Entity-introducing constructions are usually used for entities which are unpredictable or non-recoverable from the preceding discourse as well as text-external world. Some entities can be predicted or recovered from text-external world, for example, *tree*, *river* and *sun* of nature world or *clothes*, *meal* and *house* of daily-life and cultural world. Of course, these kinds of entities are rarely introduced by a special construction unless the speaker assesses that the addressee is not able to effectively process the referential expression at the time of utterance.

### 3.3 Event-reporting constructions

Event-reporting constructions in Kadorih are used for introducing a new event and new entity in order to focus on the occurrence of the event which is assumed to be unpredictable or non-recoverable for the addressee at the time of utterance. They do not show any formal characteristics such as prosody, syntax, or limited sets of predicates as seen in topic-comment and entity-introducing constructions. Recall that entity-introducing constructions also bring a new entity and a kind of ‘new’ event, that is, a hitherto unnoticed presence or appearance of the entity at the time of utterance. However, while it is the existence of an event that the speaker wants to focus on by an event-reporting construction, it is the existence of an entity that he or she wants to focus on by an entity-introducing construction.<sup>3</sup>

The extract in (13) shows an event-reporting construction which describes the past situation of Bolihkoi village. The event denoted by the predicate (*baas ngulam ngulam dinding dahpur=kai*) is centered by the sentence, and it necessarily involves specific species of wild animals as an agentive entity or entities, here *uhcang* ‘deer’.

<sup>3</sup> Sasse (1987: 526–527) makes the distinction between “entity-central and event-central thetic expressions”. Lambrecht (1994), following Sasse’s (1987) distinction, uses the term “thetic sentences” “to designate a superordinate information-structure category which includes the categories “event-reporting sentence” and “presentational sentence”” (Lambrecht 1994: 144).

- (13) (When I was young, around 17 years old, I lived in Bolihkoi village here. There were few people in Bolihkoi village. Approximately there were 30 people. Houses were just humble. There were no people taking a walk along the road in the night.)  
*uhcang baas ngulam ngulam dinding dahpur=kai ndoi ngolomi.*  
 deer strong chew chew wall kitchen=our(exclusive) if night  
 ‘Deers/a deer always gnawed the wall of our kitchen in the night’.

Both the entity and the event are text-internally ‘new’ to the addressee at the time of the utterance. The schematic representation of the information structure of (13) is shown in (14).

- (14) Sentence: *uhcang baas ngulam ngulam dinding dahpur=kai [...]*  
 Pragmatic presupposition: (no presupposition)  
 Pragmatic assertion: deers always gnawed the wall of our kitchen [...]

In Kadorih, the event denoted by an event-reporting construction is usually questioned through the use of an interrogative *ombai* ‘why’. The short conversational exchange in (15) shows this kind of questioning and an event-reporting construction as the reply to it.

- (15) (Speaker Q notices something happened to speaker R)  
 Q: *ombai ma?* — R: *poros butui=ku.*  
 why (form.of.address) ill belly=my  
 ‘Why, my uncle?’ — ‘I have a stomachache’.

In the reply to the question in (15), both the referent of *butui=ku* ‘my belly’ and the event denoted by *poros* ‘ache’ are text-internally ‘new’ to speaker Q, who questioned earlier. However, the entity denoted by *butui=ku* may not necessarily be fully non-topical. Here, speaker R, the referent of the expression *ku* ‘my, I’ is topical, and accordingly ‘my belly’ may become somewhat topical via the frame evoked by the possessor ‘I’. However, ‘my belly’ is never sufficiently topical for calling speaker R’s sentence as a comment-topic construction because any topic of this conversational exchange, except for the cases where the speaker herself is the topic, is not yet established. Immediately before speaker R’s utterance, there are too many possible topics for speaker R’s sentence even if the topic will be an entity possessed by speaker R. For instance, ‘my head’, ‘my nephew’, ‘my dog’, ‘my house’, and others. Therefore, speaker Q, the addressee of speaker R’s utterance, would not precisely predict what speaker R will talk about.

### 3.4 Identificational constructions

As is not allowed in the case of entity-introducing constructions, movement of the noun phrase which denotes an entity to the pre-predicate position is also impossible for event-reporting constructions. The elicited sentence in (16a) is such a reversed one corresponding to the sentence of speaker R’s reply in (15). As shown in (16b), the insertion of the relativizer (*i)jo* before the predicate *poros* ‘ache’ enables this kind of example to be acceptable.

- (16) a. *#butui=ku poros.*  
 belly=my ill  
 b. *butui=ku jo=poros.*  
 belly=my (relativizer)=ill  
 ‘It is my belly that aches’.

The sentence in (16b) is usually uttered in reply to the question like *narai jo=poros?* [what (relativizer)=ill] ‘Where does it ache?’ (16b) is the construction targeted in this subsection, namely identificational construction. This construction is used to identify an entity and to fill the blank part of a presupposed open proposition with the identified entity.<sup>4</sup> The relevant open proposition for (16b) is *x poros* ‘x aches’. (17) shows the schematic information structure of (16b).

- (17) Sentence: *butui=ku jo=poros.*  
 Pragmatic presupposition: speaker’s x aches or x aches  
 Pragmatic assertion: x = belly or x = speaker’s belly

Because the sentence in (16b) is the reply to the question ‘Where does it ache?’, it may be pragmatically presupposed in the relevant discourse that the aching body part belongs to the utterer of the sentence in (16b). Thus, the pragmatic presupposition in (17) may be ‘speaker’s x aches’, and if so, the pragmatic assertion will be simply ‘belly’. What is important here is that identificational constructions are different from topic-comment and entity-introducing or event-reporting ones in terms of information structure. The relevant pragmatic presupposition is that something belonging to the speaker aches, and the pragmatic assertion made by uttering the sentence is that this thing is his/her belly.

Identificational constructions in Kadorih can be called cleft constructions. They are a kind of equational constructions in which a non-topical noun phrase (e.g. *butui=ku* in (16b)) equates a non-referring headless relative clause (e.g. *jo=poros* in (16b)). On the other hand, the structure made up of a *topical* noun phrase and a relative clause is only an argument within a sentence or topic-comment construction as the extract in (18). The whole structure of the sentence in (18) is an equational construction. However, the headless relative clause *ijo anai=ka keturunai* functions as the comment for the topic NP *Muang=tuh*, and it refers to an identifiable set of individuals, which includes *Pulang* in the previous sentence.

- (18) (I’m going to start talking about the descendants of these 8 people. *Pulang* is a person whose descendants live in Batu Nyiwuh, and (he is) a person who have **Muang** and **Luput** as his children.)  
 [topic NP] [referring headless relative clause]  
 [*Muang=tuh*], *wayah=tuh*, [*ijo anai=ka keturuna-i*].  
 (name)=this, period=this, (relativizer) there.far.a.field=also descendant-his  
 ‘*Muang* is a person whose descendants are also living today’.

#### 4. Information status and realization of discourse referents

In this section, discourse referents will be analyzed in terms of their information status and realization. Thus, at the grammatical level, the analysis will be conducted on arguments (noun phrases or pronominal markers) and adjuncts (adverbial clauses or phrases), which can designate discourse referents. On the other hand, verbal or adjectival predicates, which do not designate discourse referents, will not be analyzed here.

For the discussion on information status, this paper uses two terms, “identifiability” and “activation”.

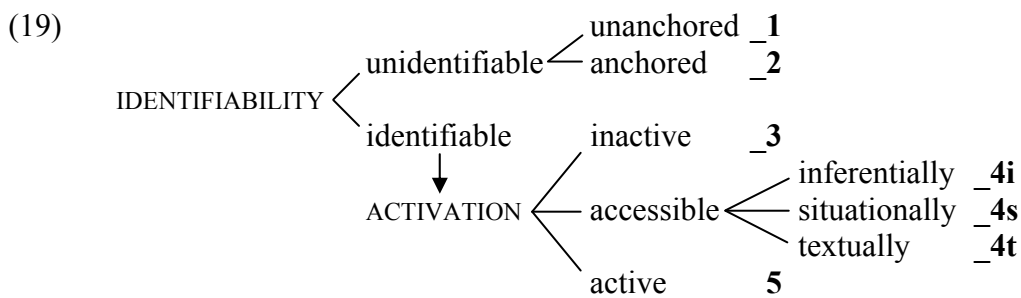
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<sup>4</sup> This construction must be composed of a ‘new’ referring expression and a (‘given’) presuppositional expression. If it is composed of a ‘new’ non-referring predicate nominal and a ‘given’ referring expression (e.g. Eng. The ones who did that are **my friends** (Lambrecht 1994: 123)), then it is a simple comment-topic construction.

In his analysis of discourse referents for which a certain representation exists, Chafe (1976: 39) comments that “*identifiable* would be a better term than definite”, and he observes that the term “identifiable” is preferable to another term such as “known”. Lambrecht (1994: 77–78) describes an identifiable referent as “one for which a shared representation already exists in the speaker’s and the hearer’s mind at the time of utterance”, and an unidentifiable referent as “one for which a representation exists only in the speaker’s mind”. Lambrecht (1994: 87) also notes that the cognitive category of identifiability is presumably universal and that it partly matches the grammatical category of definiteness.

Chafe (1976: 27–28), in his general discussion on communication, says that “not only do people’s minds contain a large store of knowledge, they are also at any one moment in certain temporary states with relation to that knowledge”, and he pays careful attention to the importance of the addressee’s consciousness for conveying information.

Following Chafe’s studies and Prince (1981), Lambrecht (1994: 105–109) summarizes the terms in the system of identifiability and activation as shown in (19).



The marks consisting of an underscore and a number, ‘\_1’ to ‘\_5’ added after each term in (19) indicate degrees of information status. On the basis of this classification of information status, this section will look into a Kadorih narrative text.

The extract in (20) shows the first part of an oral narrative titled ‘The story of Uhko’. Only glosses will be given below word by word. Each argument or adjunct will be marked by one of the numbers for information status shown in (19). In the following discussion, tentatively, the storyteller is the primary speaker, and the audience of the story is the primary addressee.

- (20) ‘The story of Uhko’ (the preceding part from the beginning)
- a. this 4s title=its 4s [story Uhko walk check fish.trap] 1
  - b. so Uhko 4 [day that] 1 depart walk set fish.trap=his 4
  - c. then Uhko 5 carry fish.trap=his 5 [to 1(one) river] 1 and-he 5 set-it 5  
[at there] 5 [(relativizer) inside=his] 4i
  - d. but vision-his 4i birds 1 many
  - e. “finished self-its 4i” said Uhko 5 “I=this 4s set-it 5 [at upper tree= just] 1”
  - f. then Uhko 5 set fish.trap 5 [at upper tree] 5
  - g. so [1(one) day that] 4i Uhko 5 wait=it 4i
  - h. filled.too.full by birds 5 [fish.trap Uhko] 5 “Oh!”
  - i. so Uhko 5 directly=just 4i he 5 climb walk check [fish.trap that] 4i
  - j. very=he 5 hit hit [birds many that] 4i
  - k. Ø 5 indeed [(relativizer)=sprawled.out] 4i [that’s the story]

In the first line, the storyteller gives the title of her story. Generally speaking, audiences cannot come up with a title which is entirely new to them. Therefore, the mental representation of the referent of the title phrase in (20a) is **unidentifiable and unanchored** at the time of the utterance, which has not been yet identifiable (nor activated) in the audience’s

consciousness at the time. However, the status of the referent of the title can be **inactive** if the addressee knows the story. In such a case, its referent is already stored in the addressee’s long-term memory, and the referent is just inactive or “unused” (Prince 1986) at the time of the utterance. On the other hand, also unidentifiable (and unanchored) referents, ‘one day’ in (20b), ‘to a river’ in (20c), and ‘birds’ in (20d) cannot be inactive since these kinds of diegetic referents in a fictional setting are always brand-new to addressees.

Among a number of referents designated by arguments and adjuncts in the stretch of the introductory part in (20), only the referents of a character ‘Uhko’, one of his belongings ‘fish trap’ and places ‘(on) tree’ and ‘(in) river’ are sometimes fully **active** when their mental representations are currently activated or “lit up” (Chafe 1987: 25) in the audience’s consciousness at the time of each utterance.

The referent of ‘Uhko’ is coded by lexical item *Uhko* in (20abcefghi), pronoun *ahku* ‘I’ or *io* ‘he’ in (20ei), and pronominal suffix *-i* (20cd) and enclitic *=oh* (20bcj). This referent is most frequently coded by a lexical item. The frequent use of lexical items for proper names is a characteristic property of storytelling in Kadorih. If a storyteller more frequently uses pronominals in a story in which more than one character appears, then the audience is more likely to face difficulties with identifying these character, or resolving the ambiguous anaphoric link. Therefore, Kadorih storytellers often avoid referring to a character by means of pronominals or a phonologically null form. Of course, this characteristics is specific only to storytelling, pronominals and null forms are also frequently used in daily conversation as the referent of ‘birds’ is not coded in (20k) because of its active status.

The lexically coded ‘Uhko’ in (20b) is only **semi-active** or **accessible**. It is the very first coding as an individual although within the preceding sentence ‘Uhko’ is coded as the name of a character in the title phrase.

On the other hand, the same referent is coded by a pronoun *ahku* ‘I’ within a directly quoted sentence in (20e). This referent can be said to be **situationally accessible** because it is deictically anchored with reference to the text-internal deictic center, namely the ‘speaker’ in the story. Generally, when a pronominal is given in a direct quotation, the audience of a story is usually required to reidentify a referent. In the case of (20e), the audience will successfully identify the referent of the quoted pronoun on the basis of the established situation in the text-internal world.

Another situationally accessible referent is designated by a demonstrative *tuh* [this] in (20a), which means ‘now’ here. It is deictically anchored too, but here, anchored with reference to the time of the storyteller’s utterance. Moreover, *jodol=oh* ‘its title’ in (20a) provides yet another type of situationally accessible referent. Its referent can be inferred from the situation in the text-external world such that the speaker is a famous storyteller or she seems prepared to tell a story immediately before the utterance.

The referent of ‘fish trap’ is coded by lexical item *buwu* in (20abcfhi) and pronominal suffix *-i* in (20ce). The referent of the lexically coded *buwu(=oh)* in (20b) is simply semi-active or accessible with the same reason as for ‘Uhko’ in (20b).

On the other hand, the referent of *buwu atuh* [fish.trap that] in (20i) is **accessible via the inference from the change of state implied** in the preceding line. In (20h), it is stated that ‘Uhko’s fish trap is full of birds’ and implied that the state of the fish trap is changed into ‘full of birds’ from the former state ‘empty’. The audience of the story is reminded of this change of state by the appropriate use of the demonstrative *atuh* ‘that’ instead of the possessor expression, lexical item *Uhko* or pronominal *=oh*.

Moreover, the referents of ‘his inside (=in his heart)’ in (20c) and ‘his vision (=to the eye of him)’ in (20d) are **accessible via the inferences from the semantic frame** evoked by already activated entity ‘he’.

The next extract in (21) shows the following part of ‘The story of Uhko’.

- (21) ‘The story of Uhko’ (the following part)  
a. then Uhko<sub>5</sub> go.home bring birds<sub>5</sub> many [for Mulau]<sub>1</sub>  
b. and-he<sub>5</sub> set-it<sub>5</sub> again [at upper tree]<sub>4t</sub>

*A dialogue between Uhko and Mulau*

- c. so “why=(particle) yours<sub>4i</sub> (relativizer)=walk check fish.trap<sub>5</sub> get birds<sub>5</sub> many=(particle) Uhko<sub>5</sub>” said Mulau  
d. “no Ø<sub>5</sub> be.set=I<sub>5</sub> [at upper tree]<sub>1</sub>” said Uhko  
e. “most-excessive=(particle) yours<sub>4i</sub> [stupidity your=this]<sub>4i</sub>”  
f. “not (experiential.perfect) human<sub>3</sub> set fish.trap<sub>5</sub> [at upper tree]<sub>5</sub>” said Mulau  
g. “[at water]<sub>4i</sub> [at river]<sub>4i</sub>” said Mulau for Uhko  
h. “vision-my<sub>4i</sub> birds<sub>5</sub> many=(particle)” said Uhko “a.moment.ago<sub>4s</sub>”  
i. “(anaphor)<sub>4t</sub> I<sub>5</sub> (relativizer)=set-it<sub>5</sub> [at upper tree]<sub>5</sub>”  
j. (so he busy cook clean [birds (relativizer) result fish.trap that there])  
k. “excessive [stupidity your=this]<sub>4i</sub>” said Mulau  
  
l. be.beaten Mulau<sub>5</sub> by Uhko=this<sub>5</sub> [at there]<sub>4i</sub>  
m. lost thrown.out [stone stupidity Uhko there]<sub>5</sub> intelligent=entirely Uhko<sub>5</sub> there=(anaphor)<sub>5</sub>  
n. this<sub>4s</sub> not=entirely he<sub>5</sub> stupid not=entirely he<sub>5</sub> be.stupid  
o. thrown.out lost=entirely [stone stupidity (anaphor)]<sub>5</sub> =entirely  
p. [that’s story of] clever intelligent=entirely Uhko<sub>5</sub>  
q. (anaphor)<sub>4t</sub> finished [word story story Uhko=that]<sub>4t</sub> [(relativizer)=stupid that]<sub>4i</sub>  
r. that’s.all=just

At the time of the utterances of the first two lines in (21), the referents of ‘Uhko’, ‘fish trap’ and ‘birds’ remain activated in the audience’s minds. However, the time and place in the text-internal world changes from the Uhko’s hunting scene to his returning one. This scene change is implicitly expressed by the predicate *buli* ‘go home’ and a newly introduced entity *Mulau*, who is Uhko’s wife. The sentence in (21b) ‘And he sets it again on a tree’ is only added for audience’s information but the place denoted by the adjunct *aang taruk kacu* ‘on a tree’ is sufficiently deactivated by the scene change in the preceding line (21a). That is why this adjunct is analyzed as **textually accessible**, not as active.

From (21c) to (21k), the dialogue between Uhko and Mulau is shown by means of glosses. As can be seen from the quoted lines contained in the exchange, this text-internal dialogue is embedded in the discourse of the storytelling. Therefore, while the storyteller and audience are still the primary speaker and addressee respectively, Uhko and Mulau are the embedded speaker or addressee at each directly quoted utterance. For (21c–k), I will analyze the information status of discourse referents on the basis of the embedded, not primary, speaker and addressee.

In (21c), Mulau asks why Uhko hunted birds although he carried a fish trap. The relativizer in (21c) indicates that the proposition denoted by the relative clause [walk check fish.trap] is presupposed. At the time of her utterance, Mulau has known that Uhko carried his ‘fish trap’ and brought ‘birds’ home, and the mental representations of these referents are still active in the Uhko’s consciousness. On the other hand, although WHY-interrogative sentences actually ask the purpose of an event, it is implied, in the case of (21c), that the hunting process and place has not yet been identified by the questioner, i.e. Mulau. That is why the referent of

the hunting place ‘on a tree’ in the reply shown in (21d) has been unidentifiable at the moment.

In (21f), the subject of the direct quotation is *ulun* ‘human, people’, which is used as a generic noun phrase, not an indefinite one.<sup>5</sup> The referent of such a generic noun phrase is stored in the addressee’s long-term memory, and it can be easily taken for granted pragmatically. Therefore, the referent of *ulun* will always be at least identifiable, and it is usually just inactive at the time of utterance as in (21f).

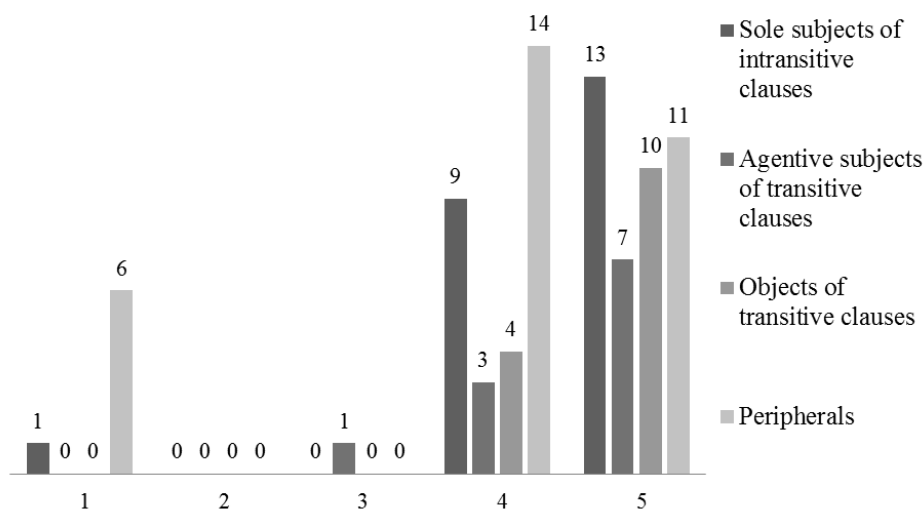
In Kadorih narratives, **unidentifiable and anchored** items often occur in an entity-introducing construction as in (22a) and (22b). They do not usually occur at the beginning of folklore tales as already shown in ‘The story of Uhko’ in (20), but they typically occur at the beginning of temporary stories based on personal experience. (22) lists some sentences which contain unidentifiable and anchored items at the beginning of such stories. In the following, phrases in square brackets denote unidentifiable and anchored referents, and words or phrases in bold denote the anchoring discourse referents.

- (22) a. *tohko* [ *ulun tahkan sungoi Rungan\_3* ]\_2. (=9)  
‘There was [ a man **from Rungan River** ]’.
- b. *anai* [ *ihco ulun mondah tahkan Kalimantan Barat\_3* ]\_2, *ijo arai Ranjung*  
‘There was [ an ill person **from West Kalimantan**, whose name was Ranjung ]’.
- c. *ahku huang bakesah* [ *gawi-[k\_5]* **hondou=tuh\_4s** ]\_2 *ahkan Kasuya*, ...  
‘I’m going to tell Kazuya a story about jobs **today that I did**, ...’
- d. *ahku huang mander* [ *panyala-[k\_5]* **ondou hawun\_4s** ]\_2 *ahkan Kazuya*.  
‘I’m going to report to Kazuya on a (small) trip **tomorrow that I will make**.

For example, in (22a), the referent of the noun *ulun* ‘a man’ cannot be identified but this referent becomes more specific and the degree of its identifiability is increased through pragmatic anchoring. An inactive or unused referent ‘(from) Rungan River’ is used to anchor ‘a man’ here. Similarly, ‘jobs’ in (22c) and ‘trip’ in (22d) are both anchored by the currently active referent ‘me’ and, furthermore, anchored by situationally accessible referents ‘today’ and ‘tomorrow’ respectively. Notice that, as is the case of (22c) and (22d), some events such as ‘job’ or ‘trip’ can be anchored with reference to their agents whereas some semantically alienable entities such as ‘fish trap’ or ‘kitchen’ can only be loosely linked to their possessors, and the frame evoked by their possessors may not include them.

Figure 3 shows the result of counting the number of subjects, objects, and peripherals which occur in ‘The story of Uhko’. In this folklore text, unidentifiable and anchored referents (the ones indexed with ‘\_2’) are not coded. Object arguments code only accessible and active referents. On the other hand, subject arguments of both transitive and intransitive clauses mainly code accessible and active referents. Additionally, it can be said that subject arguments rarely code unidentifiable and inactive referents. In contrast, unidentifiable referents tend to be coded by peripheral elements.

<sup>5</sup> “[M]any languages have grammatical constraints against indefinite NPs in initial subject (i.e. unmarked topic) position” (Lambrecht 1994: 166), and generic noun phrases can occur in topic positions whereas indefinites cannot (cf. Gundel 1988: 213–215).



**Figure 3. Information status and grammatical relations**

## 5. Conclusion

This paper elucidated the basic part of information structure of Kadorih. There are three main findings presented in this study. Firstly, on the prosodic level, rising pitch and juncture pause can be the formal indicator of information structure, and some other prosodic properties can also be used to indirectly signal or reinforce information structure. Secondly, different kinds of constructions which signal information structure were classified from the discourse-pragmatic point of view, and described through the analysis of pragmatic categories of presupposition and assertion for each construction. Finally, information status and realization of referents in Kadorih discourse were demonstrated by looking into a folklore text. Particularly, two kinds of ‘accessibility via inference’ were posed, namely, accessibility via inference from the change of referent’s state and one via inference from the semantic frame evoked by an activated referent. In addition to the demonstration of information status, coding tendencies of subjects, objects and peripherals in a folklore text were presented for referents with different information status.

## References

- Chafe, Wallace L. 1976. Givenness, contrastiveness, definiteness, subjects, topics and point of view. In *Subject and Topic*, ed. by Charles N. Li, chapter 2, 25–55. New York: Academic Press.
- . 1987. Cognitive constraints on information flow. In *Coherence and Grounding in Discourse*, ed. by Russell S. Tomlin, volume 11 of *Typological Studies in Language*, 21–51. Amsterdam/Philadelphia: John Benjamins.
- Gundel, Jeanette K. 1988. Universals of topic-comment structure. In *Studies in Syntactic Typology*, eds. by Michael Hammond, Edith Moravcsik, and Jessica Wirth, volume 17 of *Typological Studies in Language*, 209–239. Amsterdam/Philadelphia: John Benjamins.
- Halliday, Michael A. K. 1970. Language structure and language function. In *New Horizons in Linguistics*, ed. by John Lyons, chapter 7, 140–165. Harmondsworth: Penguin.
- Inagaki, Kazuya. 2013. TAME indicators in Kadorih. In *Tense, Aspect, Mood and Evidentiality in Languages of Indonesia*, ed. by John Bowden, volume 55 of *NUSA*, 95–121.



- Lambrecht, Kund. 1994. *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*, volume 71 of *Cambridge Studies in Linguistics*. Cambridge: Cambridge University Press.
- Laver, John. 1994. *Principles of Phonetics*. Cambridge: Cambridge University Press.
- Prince, Ellen. 1981. Toward a taxonomy of given–new information. In *Radical Pragmatics*, ed. by Peter Cole, 223–255. New York: Academic Press.
- Sasse, Hans-Jürgen. 1987. Thethetic/categorical distinction revisited. *Linguistics* 25: 511–580.