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SHIN-YA IWASAKI

THE CROSS-LINGUISTIC POSITIONING OF TEMPORAL ADVERBIALS*

1 INTRODUCTION

In this paper, we shall discuss the relation between temporal adverbials and word order within the framework of Cognitive Grammar (Langacker 1987, 1991, 1999). I argue that the cognitive notion of a 'setting' can motivate the positioning of temporal adverbials cross-linguistically. Temporal adverbials, which are often classified into circumstantial adverbials, are generally distributed freely in many languages. Cinque (1999: 28–29) shows five properties distinguishing circumstantial adverbials from the other adverbials. First, they are not rigidly ordered with respect to one another. Second, they can be interchangeably in one another's scope. Third, their typical realization is prepositional form or in 'bare NP' form. Forth, they cannot appear before the verb, although many other adverbials can. Finally, they are semantically different, that is, circumstantial adverbials can be seen as 'modifiers' predicated of an underlying event variable, while other adverbials have the characteristics of 'operators.' We will concentrate on the order of temporal adverbials in sentences and consider why they freely appear in the various positions cross-linguistically.[1]

In this paper, I shall argue that the positioning of temporal adverbials is explained by dividing sentences into a 'setting' and 'the remainder' cross-linguistically. This conclusion shows why although temporal adverbials are located relatively freely in sentences in many languages, some languages do not have them in the middle of the sentence.

This article will take the following form. In section 2, I will show that temporal

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[1] I have used the characteristics of circumstantial adverbials by Cinque (1999) for clarifying the differences between them and other adverbials. Fillmore (1994) criticizes the generative tradition point of view.

adverbials occur relatively freely in many languages, although some languages ascribe difference in meaning according to the position. Section 3 offers an overview of the theoretical framework that is employed in this paper. Section 4 illustrates how the positioning of temporal adverbials is motivated. The final section, section 5, presents concluding remarks.

2 THE POSITIONING OF TEMPORAL ADVERBIALS

In this section, we will separately consider how temporal adverbials are distributed in each language. I take up locative adverbials in which I can compare with temporal adverbials in each language, because there are some languages in which temporal adverbials take the locative case marker.

2.1. English

In English, the word order is a Subject-Object-Verb order (SVO) and temporal adverbials usually occur in the sentence-final position and can go in the sentence-initial position:[2]

(1) a. John spoke to his mother yesterday.
b. Yesterday John spoke to his mother.
c. *John yesterday spoke to his mother.
d. *John spoke yesterday to his mother.

(Costa 1997: 63)

(1a) and (1b) take the adverb *yesterday* in the sentence-final and in the sentence-initial position, respectively. If it occurs in the pre-verbal or post-verbal position, it is generally unacceptable, as in (1c) and (1d), respectively.

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[2] Costa (1995: 26) gives examples in which temporal adverbials occur in the pre-verbal and post-verbal position:

(i) a. Yesterday, John read the newspaper.
b. John read the newspaper yesterday.
c. John yesterday read the newspaper.
(ii) John looked yesterday at pictures of Miro.

On the other hand, Cinque (1999: 180) points out that temporal and locative adverbials generally do not occur in the pre-verbal position:

(iii) * John will {tomorrow/there} attend classes.

Although there is some difference in acceptability, it seems that these are permissible in informal writing or the newspaper.

2.2. Catalan

Catalan has the same basic word-order pattern as English, in transitive main clauses, of S + V + O + the remainder. However, word order in Catalan is generally freer, and it is by no means unusual to deviate from the basic pattern. An important reason for this is that the end position in a sentence carries the information focus (Wheeler et al. 1999):

(2) El veiem cada dia (Wheeler et al. 1999: 230)
We see every day.

(3) Se celebra a Londres des del 1895.[3] (ibid: 358)
'It has been held in London since 1895.'

(4) Tres persones s'han matat avui per l'autopista.[4] (ibid: 409)
'Three people have been killed today on the motorway.'

(2) and (3) show that they have temporal adverbials, *cada dia* 'every day' and *del 1895* 'since 1985' in the sentence final, respectively. In Catalan, a short adverbial may come between verb and direct object, as in (4).

2.3. French

In French, the basic word order is a SVO. Temporal adverbials that refer to specific days can be placed at the beginning or the end of the sentence.[5]

(5) a. Il ira à Paris demain. (Alexiadou 1997: 112)
He go-FUT to Paris tomorrow.
'He will go to Paris tomorrow.'

b. Aujourd'hui, je vais acheter une voiture.[6]
'Today, I'm going to buy a car.'

2.4. Italian

Italian basically takes the SVO word order. The temporal adverbials occur relatively freely in the sentence, but generally appear in the sentence-final position, as in (6):

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[3] In example (3), 'a' stands for a location marker.
[4] In example (4), 'avui' means 'today'.
[5] In French, short temporal adverbials can intervene in the middle part of the sentences.
[6] In (5), 'aujourd'hui' means 'today'.

(6) a. Mi occupero di loro domain
me occupy-FUT of them tomorrow
b. Hanno dato la notizia a Gianni allora.
'They gave the news to Gianni then.'

(Cinque 1999: 15)

2.5. Japanese

The word order of Japanese is a SOV order. Temporal adverbials can occur anywhere except the post-verbal position:

(7) a. kino Taro-ga Ken-o tataita.
yesterday Taro-NOM Ken-ACC hit
'Taro hit Ken yesterday.'
b. Taro-ga kino Ken-o tataita.
Taro-NOM yesterday Ken-ACC hit
'Taro hit Ken yesterday.'
c. Taro-ga Ken-o kino tataita.
Taro-NOM Ken-ACC yesterday hit
'Yesterday, Taro hit Ken.'
d. * Taro-ga Ken-o tataita kino.
Taro-NOM Ken-ACC hit yesterday

Japanese generally has temporal adverbials in the sentence-initial position as in (7a). If they occur in the other positions, the phrases or the words before them are usually emphatic. For example, *Taro* in (7b) and *Taro-ga Ken-o* in (7c) are emphasized respectively. Temporal adverbials never occur in the sentence-final position as in (7d).

2.6. Greek

Greek generally takes the VSO word order and it is also possible to have SVO order. Temporal adverbials typically occupy the final position (Alexiadou 1997: 112):

(8) a. Agorase kthes to aftokinito
bought-3SG yesterday the-car-ACC
b. Agorase to aftokinito kthes
bought-3SG the-car-ACC yesterday
'He/she bought the car yesterday.'

Alexiadou (1997: 112)

In (8a) the adverb *kthes* 'yesterday' occurs in the post-verbal position, while in (8b) it occurs in the sentence-final position. When it appears in the sentence-initial position, it is interpreted as being focused.

(9) a. Kthes, o Janis agorase to aftokinito
Yesterday, the-John-NOM bought-3SG the-car-ACC
b. Kthes agorase o Janis to aftokinito
c. O Janis agorase to aftokinito kthes
'John bought the car yesterday.'

In (9a) and (9b) *kthes* in the sentence initial is interpreted as focused, whereas in (9c) it is not.

2.7. Modern Hebrew

The basic word order of Modern Hebrew is a SVO. Most temporal adverbials can appear virtually anywhere except between subject and verb or adjective, and there too for emphasis (Glinrt 1989: 238).

(10) a. láma ata ko'es?
'Why are you angry?'
b. ki *be-shabat* bnikibel doH-Hanaya.
'Because on Saturday my son got a parking ticket.'
b'. ki bnikibel *be-shabat* doH-Hanaya.
'Because my son got on Saturday a parking ticket.'
b". ki bnikibel doH-Hanaya *be-shabat* .
'Because my son got a parking ticket on Saturday.'

As shown by the question-answer sentence (10), the three positions of the adverbial *be-shabat* 'on Saturday,' that is, the initial in (10b), the post-verbal in (10b'), and the sentence-final (10b") are acceptable. Long adverbials are generally placed at either end of the clause.

In Modern Hebrew, however, there are some exceptions. *Páma* 'once', *az* 'then (= at that time)', *aHshav* 'now,' and *tamid* 'always' occur between subjects and adverbials. *Az* 'then (= after that)' appears in the sentence-initial position.

2.8. German

The basic word order of German is SOV, but the simple declarative sentence mainly takes a SVO order (Bartshe 1976: 261–262).

(11) a. Peter kommt wärend der Sommerferien wärend unseres
Peter come-3s during the summer-vacation during our
dreitägigen Aufenthalts in Berlin.
three-day stay in Berlin
'In the summer vacation Peter is coming during our three-day stay in Berlin.'

b. Peter kommt wärend unseres dreitägigen Aufenthalts in Berlin
Peter come-3s during our three-day stay in Berlin
wärend der Sommerferien.
during the summer-vacation
'In the summer vacation Peter is coming during our three-day stay in Berlin.'
'Peter is coming during our three-day stay in Berlin in the summer vacation.'

c. ...(weil) Peter wärend der Sommerferien nach unserem
...(because) Peter during the summer-vacation after our
dreitägigen Aufenthalt in Berlin kommt.
three-day stay in Berlin come-3s
'... (because) Peter is coming after our three-day stay in Berlin in the summer vacation.'

In German temporal adverbials occur freely as in (11a) and (11b). However, they do not occur in the sentence-final position in the subordinate clause as in (11c).

2.9. Portuguese

The basic order of Portuguese is a SVO, though it is not as rigid as in English. Temporal adverbials, in general, occur freely as follows:

(12) a. O Paulo ontem falou com a mãe.
the Paulo yesterday spoke to the mother
'Paulo spoke to his mother yesterday.'

b. O Paulo falou ontem com a mãe.
the Paulo spoke yesterday to the mother
'Paulo spoke to his mother yesterday.'

c. O Paulo falou com a mãe ontem.
the Paulo spoke to the mother yesterday
'Paulo spoke to his mother yesterday.'

Temporal adverbials occur in the pre-verbal, post-verbal, and sentence-final position in (12a), (12b), and (12c), respectively.

In Portuguese the presuppositions associated with each placement of the adverbials are different.

(13) a. O Paulo ontem discutium com a mãe,
the Paulo yesterday argued with the mother
a'. hoje com o pai.
today with the father
'Yesterday Paulo argued with his mother, today with his father.'
a''. hoje fez as pazes.
today (he) made the:peaces
'Yesterday Paulo argued with his mother, today he made up.'

(14) a. O Paulo discutiu ontem com a mãe,
the Paulo argued yesterday with the mother
a'. hoje com o pai.
today with the father
'Yesterday Paulo argued with his mother, today with his father.'
a''.* hoje fez as pazes.
today (he) made the:peaces
'Yesterday Paulo argued with his mother, today he made up.'

If the adverb *ontem* 'yesterday' is to the left of the verb as in (13), it is possible to follow the sentence of a contrastive reading. On the other hand, if it is to the right of the verb as in (14), it is not possible to take a contrastive reading.

2.10. Kristang

Kristang is Malacca Creole Portuguese and the class of temporal adverbials generally occurs in clause initial, pre-predicate and post predicate (generally following NP arguments of the predicate) positions, as illustrated by (15a), (15b), and (15c), respectively:

(15) a. eli mazanti lo bai misa. (Baxter 1988: 73)
3s first future-irrialis particle go mass
'He first of all will go to mass.'
b. Tate nadi bai mar ozi anoti (ibid.: 141)
Tate NEG-future-irrialis particle go sea today night
'Tate won't go fishing tonight.'
c. pampamiáng eli bendé mi (ibid.: 117)
morning + morning 3s sell noodle
'Early in the morning he sells noodles.'

Here we can observe the positioning of locative adverbials in Kristang which are included in circumstantial adverbials. They generally occur in post-predicate position and also in pre-predicate and clause initial position, like temporal adverbials:

(16) nang pasá diánti !!
NEG-IMP pass front IMP
'Don't pass in front!'

(17) a. akí eli teng spinyu
here 3s have thorn
'Here it (= fish) has a spike.'

b. eli akí teng spinyu
3s here have thorn
'It, here, has a spike.'

(ibid.: 70)

(16), (17a), and (17b), respectively, show that the locative adverbials, *diánti* 'front' in (16) and *akí* 'here' in (17a) and (17b), appear in the sentence final, initial, and middle.

2.11. Nugunu

Nugunu takes a SVO as its basic word order.

(18) a. Nobólá nó á lé nó náanana, aŋa ŋga á ná
Rain it Past2 BE it fall^IMPF when I Past2 DEP
bola iyo.
arrive yesterday
'The rain was falling when I arrived yesterday.'

b. A gaá bémbá a dúenene makala méhé naá nyonyí,
she Future1 BE she sell^IMPF doughnuts her at market
aŋa kaá ná bola.
when I^F1 DEP arrive
'She will be selling her doughnuts at the market when I arrive.'

(Orwig 1991: 154)

Temporal and spatial adverbials occur in the clause final position as in (18a) and (18b), respectively.[7]

2.12. Vai

Vai basically takes the SVO word order.

[7] P2 normally refers to situations or events occurring the day preceding the speech event and F1 refers to something which will happen later today.

(19) a. mbɛ táá'à núú ká'ó mɛnúú 'à
there that month relational particle
'I'm going to there next month.'
b. ŋ ná'à ní ɛ ká'ó mɛnúú 'à[8]
here that month
'I came here last month.'

(Welmers 1976: 133)

In Vai temporal adverbials generally occur in the sentence-final position as in (19a) and (19b).

2.13. Mam

In Mam basic word order is a VSO (verb-agent-patient; i.e., verb-ergative-absolutive) (England 1983: 193). Most adverbials are considered to be morphologically 'particles' in that they do not inflect and cannot be derived. However, a small class of adverbials stems from other words.

In Mam locative adverbials are located last in the sentence (England 1983: 189).

(20) a. k' ala-7tz-a cheej maajlaj
tie up-processive imp-2s horse other side
'Go and tie up the horse there on the other side.'
b. maajlaj k' ala-7tz-a cheej
other side tie up-processive imp-2s horse
'Go and tie up the horse there on the other side.'
(21) a. k-pool iqatz maax Xhniil
3s.absolutive-arrive there-potential cargo up to there Colotenango
'The cargo will arrive there in Colotenango.'
b. maax iqatz Xhniil
up to there 3s.absolutive-arrive there-potential cargo Colotenango
'The cargo will arrive there in Colotenango.'

(England 1983: 190)

In (20a) and (21a) locative adverbials occur in the sentence-final position. It is possible for them to occur in a pre-verb position with no other changes in the sentence, as in (20b) and (21b).

Temporal adverbials are generally marked in the initial position of the sentence, and replace the usual aspect markers (England 1983: 191). They can occur in the final position of the sentence.

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[8] In (19b), ''ó' stands for the relational noun 'inside'.

(22) a. eew tz-ul aaj nan yaa7
yesterday 3s.absolutive.directional return ma'am grandmother
'Grandmother came yesterday.'

b. ø-ø-ul aaj nan
past dependent-3s.absolutive.directional return ma'am
yaa7 eew
grandmother yesterday
'Grandmother came yesterday.'

If temporal adverbials occur at the end of the sentence, they require dependent aspect markers in the past and near past (England 1983: 192).

On the other hand, the temporal adverbials that refer to the present do not require dependent aspect markers, because there is no aspect marker for the present.

(23) a. tz-uul taat ja71a
3s.absolutive-come father now
'Father comes now.'

b. ja71a tz-uul taat
now 3s.absolutive-come father
'Father will come now.'

If *Ja71a* 'now' is at the end of the sentence as in (23a), it is interpreted as present. If it is at the beginning as in (23b), it is interpreted as the future (England 1983: 193).

Next let us consider past sentences:

(24) a. o chin jaw tz'aq-a
past 1s.absolutive directional slip-1s
'I slipped.'

b. eew chin jaw tz'aq-a
yesterday 1st.absolutive directional slip-1s
'I slipped yesterday.'

c. {in/ø-chin} jaw tz'aq-a
past dependent-1s.absolutive directional slip-1s
'I slipped *yesterday*.'

d. *eew o chin jaw tz'aq-a
yesterday past 1s.absolutive directional slip-1s

e. *o chin jaw tz'aq-a eew
past 1s.absolutive directional slip-1s yesterday

f. eew in jaw tz'aq-a
yesterday past 1s.absolutive directional slip-1s
'I slipped *yesterday*.'

Sentence (24a) has a regular aspect marker and no temporal adverbial, whereas (24b) has an adverb *eew* 'yesterday' to specify time instead of the aspect marker. (24c) gives more emphasis to time by locating the temporal adverbial last in the sentence. Ungrammaticality of sentence (24d) shows that the adverbial and aspect

marker do not co-occur. (24e) is also ungrammatical because the adverbial in the sentence-final position requires a dependent marker. The temporal adverbial can be placed before the verb and the verb is marked with dependent aspects, as in (24f). Sentence (24f) is similar to (24c) in that both give emphasis to time, while (24b) can be employed to answer the question 'when?.'

2.14. West Greenlandic

West Greenlandic is a verb-final language. The locative case is most generally used to express location (Fortescue 1984: 226):

(25) a. issisvim-mut ingip-pug
chair allative sit-down 3s-indicative
'He sat on the chair'

b. qwqqa-p sani-a-nut ili-vaat
mountain relative side its allative bury 3p-3s-indicative
'They buried him beside the mountain.'

In sentence (25a) and (25b) locative adverbials appear in the sentence-initial position.

When temporal adverbials are used, they occur in various ways. For example, the causative mood is used in adverbial expressions referring to a previous day or the absolutive case is generally used in period of day expressions referring to the present day. The locative case is used in the month, expressed by Danish loan-words, the year, which is expressed by Danish numeral expressions, and Danish names of festivals (duration in the future is also expressed by the locative case) as in (26) (Fortescue 1984: 236):

(26) ukiu-mi ataatsi-mi Danmarki-mi najugaqa-ssa-anga
year loc. one loc. Denmark loc. live future 1s-indicative
'I shall live in Denmark for a year.'

(Fortescue 1984: 242)

Of course, they are not limited to the locative case.

(27) unnuaru-nngik-kaa tass-unga
become-night-for not 3s-3s-participal mood there all.
pi-vugut
go 1p-indicative
'We went there before nightfall.'

(ibid.: 244)

2.15. Dutch

The neutral order of main clauses which contain a finite verb in Dutch is SVO, whereas the word order of main clauses which do not contain a finite verb is SOV. The neutral word order in embedded clauses is SOV. The neutral order of main clauses which contain both a finite verb and a non-finite verb is SVOV (Zwart 1997: 22–24).

(28) a. Jan heeft (gisteren) Marie gekust
John has yesterday Mary kissed
'John kissed Mary yesterday.'

b. Jan heeft Marie (gisteren) gekust
John has Mary yesterday kissed
'John kissed Mary yesterday.'

c. ...dat Jan (gisteren) Marie gekust heeft
that John yesterday Mary kissed has
'...that John kissed Mary yesterday.'

d. ...dat Jan Marie (gisteren) gekust heeft
that John Mary yesterday kissed has
'...that John kissed Mary yesterday.'

(Zwart 1997: 30)

According to Zwart (1997: 30), elements following the sentence adverbial present new information and elements preceding it are already present in the existing discourse. In that circumstance, sentence adverbials do not intervene between the object and the verb, if the object and the verb together present a chunk of new information.

2.16. Lezgian

Word order patterns in Lezgian are generally head-final. This order is obligatory in noun phrases, adjective phrases, and postpositional phrases, and it is preferred for clauses. However, other orders as well as SOV order are also possible, especially in the spoken language (Haspelmath 1993: 5).

In Lezgian temporal adverbials usually occur freely except in the sentence final position:

(29) Qe sobranie že-da-lda.
today meeting be-future-hearsay-evidential
'They say that there will be a meeting today.'

(Haspelmath 1993: 148)

(30) a. Naq' Ali.di Kerim.a-z tup hina ga-na?
yesterday Ali (ERG) Kerim-DAT ball where give-aorist
'Where did Ali give the ball to Kerim yesterday?'
b. Wun i č'aw.a-lidi hina awa-ji?
you:ABS this time-superdirective where be.in-past
'Where have you been until this time?'

(ibid.: 422)

In (29) and (30a) temporal adverbials, *qe* 'today' and *naq'* 'yesterday' appear in the sentence-initial position, respectively, whereas in (30b) *i č'aw.a-lidi* 'this time' appears in the middle of the sentence.

2.17. Kiribatese

Kiribatese generally has the verb in the sentence-initial position. Temporal adverbials such as *ngkai* 'now,' *ngkoanaoa* 'yesterday,' or *ningngabong* (*ningngaabong*) 'tomorrow' are generally placed just after the explicit subject but can also be placed in the other positions (Groves et al. 1985: 96).

(31) a. E kana te ika teuaaei ngkoananoa.
eat article fish this man yesterday
'This man ate fish yesterday.'
b. E kakai reke te ika ikai.
easily caught article fish here
'Fish are easily caught here.'

(Groves et al. 1985: 98)

In sentence (31a) the temporal adverbial *ngkoananoa* 'yesterday' occurs after the subject *ika* 'fish.' It seems that the locative adverbial *ikai* 'here' also occurs after the subject as in (31b).

2.18. Irish

In Irish, we can see the VSO word order in finite clauses, as in (32a), while in non-finite clauses the verb is known in traditional grammar as the "verbal noun," which is preceded by the subject, as in (32b). At the same time, (32) shows that temporal adverbials generally occur in the sentence-final position (Guilfoyle 2000: 62–63):

(32) a. D'fhan Seán sa bhaile inniu.
Stay.PAST Seán at home today.
'Sean stayed at home today.'

b. B'fhearr liom [tú fanacht sa bhaile inniu].
COP'better with1s you remain.INF home today
'I would rather you remain at home today.'

c. Bhí sé thiar ansin go haerarch ar an mbóthar inné[9]
'He was back there in a carefree manner on the road yesterday.'
(Ó Siadhail 1989: 206)

Temporal adverbials generally occur in the final position even among adverbials. Sentential adverbials and non-aspect temporal adverbial phrases can be placed initially or finally in the sentence, as in (33a) and (33b), respectively (Ó Siadhail 1989: 214).

(33) a. Amach anseo, tiocfaidh feabhas air.
'Sometime in the future, it will improve.'

b. Le céad bliain anuas, ní raibh Gaeilge ar bith anseo.
'For the last hundred years, there was no Irish here.'
(Ó Siadhail 1989: 215)

2.19. Gaelic

The basic word order of Gaelic is VSO. Temporal adverbials generally occur in the sentence final, as in (34) (Hendrick 2000):

(34) a. Chunnaic mi Iain an dé.
see-PAST I John yesterday
'I saw John yesterday.'

b. An robh sibh anns an achadh an diugh
Q were you.PL in the field today
'Were you in the field today?'

2.20. Breton

Breton is a verb-initial language, but temporal adverbials can appear in the sentence initial, as in (35):

[9] In (32c), 'inné' means 'yesterday'.

(35) Bremañ e labour Yann.
today PRT workPRES Yann
'Today, Yann works.'

(Hendrick 2000: 30)

2.21. Niuean

Niuean generally takes the verb in the sentence-initial position:

(36) a. Fana n-e ia a ia ni neafi.
shoot EMPH-ERG he ABS him REFL yesterday
'He shot himself yesterday.'

(Carnie and Guilfoyle 2000: 5)

b. Kua kai ik mo e talo a mautolu he mogonei.
PERF eat fish with ABS taro ABS we.PL.EX at now
'We are eating fish and taro right now.'

(Rackowski and Travis 2000: 128)

(36) shows that temporal adverbials appear in the sentence final.

3 COGNITIVE GRAMMAR

In this section, we will look closely at how temporal adverbials are treated in the framework of Cognitive Grammar. Here, temporal and spatial adverbials are called "the setting" in the sense that they function as a region in which an event unfold. These adverbials usually lie at the periphery of the clause (Langacker 1991: 300):

(37) a. In Louisiana, a hurricane destroyed several small towns.
b. She saw many interesting people at the beach.
(38) a. In July, a major hurricane struck Louisiana.
b. We have made a number of important discoveries during the last two years.

Spatial adverbials *in Louisiana* and *at the beach* in (37a) and (37b), respectively, and temporal adverbials *in July* and *during the last two years* in (38a) and (38b), respectively, are construed as the setting. In Cognitive Grammar a location is different from a setting in that some verbs demand that the former can be overtly specified, whereas a setting can always be implicit as follows:

(39) a. She put the knife in a drawer.

b. * She put the knife.

(40) a. I chopped the onions on the counter with a cleaver.
b. ?? I chopped the onions with a cleaver on the counter.
c. ? On the counter, I chopped the onions with a cleaver.

(41) a. On the counter, a horde of ants was attacking a moldy crust of bread.
b. A demented cook marred the counter with his cleaver.

The sentences in (40) show that a location is sometimes most naturally placed in the middle of a clause instead of at its periphery. In (41), we observe that the status of an entity as a setting, location, or a participant is not an inherent property but a matter of construal. In (41b) *the counter* functions as a participant, while in (41a) it is construed as a setting.

4 MOTIVATION FOR THE POSITIONING OF TEMPORAL ADVERBIALS

In this section we will describe how the positioning of temporal adverbials is motivated. We separately considered their position in each language in section 2. Summing them up, we observed 21 languages, including 9 SVO basic word order languages (English, Catalan, French, Italian, Modern Hebrew, Portuguese, Kristang, Nugunu, and Vai), 5 verb-final languages (Japanese, German, Dutch, West Greenlandic, and Lezgian), and 7 verb-initial languages (Greek, Mam, Kiribatese, Irish, Gaelic, Breton, and Niuean). Table 1 summarizes our investigations:

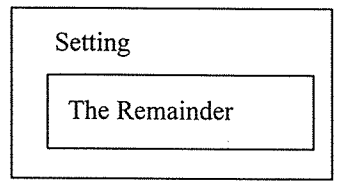
SVO	English, Catalan, French, Italian, Modern Hebrew, Portuguese, Kristang, Nugunu, Vai
Verb-Final	Japanese, German, Dutch, West Greenlandic, Lezgian
Verb-Initial	Greek, Mam, Kiribatese, Irish, Gaelic, Breton, Niuean

<Table 1> Word Order and Languages

We can describe the characteristics of the positioning of temporal adverbials in 21 languages which we saw in section 2, as follows: first, in most of them the position of temporal adverbials is not generally rigidly restricted. Second, SVO languages generally have them in the sentence-final position and a possibility that they occur in the sentence-initial position and before or after the verb, whereas the verb-final languages generally do not have them after the verb, even though they occur freely.

For the first point, I assume that the sentence is divided into two parts, that is, a setting and its remainder. This is illustrated by the following figure, which is based

on a stage model by Langacker (1991: 285).[10] Notice that he does not mention that it reflects the word order:



<Figure 1>

Figure 1 shows that the event, which is included in the remainder, occurs in the setting. For example, in English, *John hit Mary yesterday*, in the domain of the setting *yesterday*, the event *John hit Mary* occurs. In this example, the setting has a function of supplying the background in which the event occurred. English is a language that generally puts the setting in the sentence final and initial.

Figure 1 motivates the positioning of temporal adverbials cross-linguistically. First, we can assume that the setting encloses the remainder. We have two possibilities in which we may profile it before or after we utter the core part. If we profile the setting before the remainder in Figure 1, temporal adverbials occur in the sentence-initial position. On the other hand, if we profile a part after the remainder, they occur in the sentence-final position. Thus we can explain why temporal adverbials are mainly located in the sentence-final or initial position. Figure 1 also illustrates why they do not often appear in the sentence-middle position. That is, since the remainder groups them together, it is difficult for the setting to intervene in it. If they occur in the sentence-middle position, the sequence in the remainder is interrupted, as Langacker (1991: 299) points out. Of course, there may be a possibility that temporal adverbials intervene in the remainder. Although some languages have this possibility, only short expressions generally occur in that position, as motivated by Figure 1. That is why a lot of languages tend not to have a long setting in the sentence middle.[11]

For the second point, we can assume that if a sentence takes the SOV or the OSV order (for example, Japanese, German, Dutch, and so on), it is difficult for temporal adverbials to occur after a verb because the verb signals the end of the sentence, as pointed out by Greenberg (1966):

(42) Universal 7. If in a language with dominant SOV order, there is no alternative basic order, or only OSV as the alternative, then all adverbial modifiers of the verb likewise precede the verb. (This is the "rigid" subtype of III (SOV).)

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[10] The stage model pertains to our perceptual experiences. Like someone who is watching a play, a viewer observes participants who occupy the stage, that is, a setting. The stage model contributes to the perception of our everyday life and linguistic structures. Figure 1 is simplified for discussion.

[11] It seems that temporal adverbials occur in the middle of the sentence in the complex sentence, but we can assume that they have more than two Figure 1s, for example, one in the main clause and one in subordinate the clause.

Greenberg discusses Burushaski, Kannada, Japanese, Turkish, Hindi, and Burmese as the "rigid" subtype of III. If a language places them after a verb, it shows special meaning such as emphasis. Therefore, temporal adverbials generally do not occur after a verb if the basic word order of the sentence is SOV or OSV.

There is a correlation between word order and the position of temporal adverbials. The verb final languages have a stronger tendency in that they do not occur at the end of the sentence. In the SVO languages they freely occur, except in the pre and post verbal position.

Finally locative adverbials have the same property as temporal adverbials in many languages. They can be approached in terms of the metaphorical extension from spatial to temporal domain.

5 CONCLUSION

In this paper, I discussed the position of the temporal adverbials. First, I confirmed that they occur relatively freely cross-linguistically. Second, the cognitive notion, a setting, explains why they generally appear in the sentence-final or -initial position. That is, since the setting encloses the core event conceptually, its manifestation is in the sentence initial or final. Third, I showed that the reason why they rarely appear in the sentence-middle position is that since the core event groups them together, they cannot influence it except in short terms. Finally, I showed that the reason why the verb-final languages generally do not take them in the sentence final position is that the verb in these languages signals the end of the sentence.

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