行政院國家科學委員會專題研究計畫 成果報告

敘事文中的時間訊息是如何表達的？
研究成果報告(精簡版)

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中 華 民 國 99 年 09 月 30 日

How is Temporal Information Presented in Narrative Texts?

1. Introduction

Temporal information is an important element in the thematic structure of a narrative since what it recounts always develops in time. Chafe (1979; 1980), based on his analysis of *The Pear Story* data, finds that episodic transitions in an oral narrative often coincide with, among other things, changes in time. Similar observations have also been reported by other studies on both oral and written narratives from various perspectives (e.g., Bamberg & Marchman, 1990; Grimes, 1975; Givón, 1993; Ji, 2002, 2007, 2008; Prideaux & Hogan, 1993; Virtanen 1992).

What has been further observed by some of these studies is that the temporal information associated with episodic transitions in a narrative tends to be provided by various kinds of preposed *temporal adverbial constructions* (henceforth TACs)[1] used in episode-initial sentences: In the narrative texts of fairytales analyzed by Virtanen (1992), for instance, preposed adverbs and adverbial phrases of time typically serve to signal shifts of episode units and smaller sections. In both oral and written narratives studied by Prideaux & Hogan (1993), the 'marked' preposed subordinate clauses of time are found to occur far more frequently at the beginning of an episode than the 'unmarked' postposed ones. According to Givón (1993: 315), not only preposed subordinate clauses but also preposed present participial clauses may serve the same purpose, for both types of constructions can link anaphorically to the thematic information anywhere in the preceding discourse and cataphorically to their main clause, making themselves a good device for indicating episodic transitions. These observations on the use of preposed TACs find support from a series of studies by Ji (2002, 2007, 2008) on how narrative texts are hierarchically organized in episodes and how episodic transitions are linguistically expressed. Ji's studies suggest that preposed TACs constitute a very prominent characteristic of the way in which temporal information is provided in episode-initial sentences.

The observations made by the above mentioned studies have led to their characterization of preposed TACs as a discourse organizer—they can serve to signal "text-strategic continuities" (Virtanen, 1992: 100), to "manage discourse flow" (Prideaux & Hogan, 1993: 397), to indicate "thematic re-orientation" (Givón, 1993: 315), or to "show major breaks in the thematic structure of a narrative text" (Ji, 2007: 292). Despite such characterizations, these studies have paid less attention to preposed TACs used in episode-internal sentences, where they cannot be said to

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[1] In this study, the so-called TACs include adverbs, adverbial phrases, finite adverbial clauses, and present participial clauses. A preposed TAC is defined as one that occurs before the grammatical subject of a clause or sentence while a postposed TAC is one that occurs after the verb of a clause or sentence.

serve the same discourse-organizing function as those used in episode-initial sentences. An analysis of a large corpus of preposed TACs collected by the present study indicates that none of the major types of preposed TACs are predominantly used in episode-initial sentences, which suggests that the functional characterization of preposed TACs primarily as a discourse organizer is not adequate. In light of this observation, it is necessary for us to look more closely into how the use of preposed TACs is motivated in both episode-initial and episode-internal sentences and come up with an account that can accommodate their use in both positions.

In search for such an account and also for how such an account may help us understand their postposed counterparts, we conduct an analysis of all TACs, both preposed and postposed, used in 40 English narrative texts.[2] Our analysis is carried out in three parts: First, an evaluation is provided of whether signaling episodic transitions is the main motivation for using preposed TACs in the narrative texts. Second, a new perspective is proposed from which the preposed TACs in the database are analyzed in relation to the default strategy language users would adopt for comprehending temporal information in sequences of reported events. Finally, the postposed TACs in the database are compared with their preposed counterparts so as to find out their different roles in supplying temporal information. Through this analysis we hope to reveal how temporal information is provided by both preposed and postposed TACs in the thematic structuring of narrative texts.

2. Data collection and the initial analysis

The database of English TACs investigated in the present study consists of 862 preposed TACs and 503 postposed TACs. They are classified into the categories of adverbs, adverbial phrases, and adverbial clauses so that we can better observe and differentiate their roles as temporal information providers in our data anlysis. As an illustration of how these TACs are used in the narrative texts, some of them are provided in the following two excerpts:[3]

(1)   For me, the days are passing in a blur of freezing agony **(1a) as I continued trudging along (AC).** I've become fatigued and I'm starving—the sticky moths I've dug up from tree bark aren't easing my hunger. **(1b) On the**

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fourth night (AP), I burrow into a handmade bed of sticks, leaves and branches to warm myself. **(1c) When I see signs of frostbite (AC),** I'm petrified—my fingers and toes are discolored and I have painful tingling sensations. One improvement: I'm actually able to open my left eye and see through it.

(1d) On Thursday (AP), (1e) December 1 (AP), (1f) five days into this disaster (AP), I'm surprised to find myself in a large meadow without snow. Why no snow? I walk south where the ground turns from frozen to semi-mushy. **(1g) As I spot a palm-size puddle of water about eight centimeters deep (AC),** I ask myself, Why isn't this frozen?

(1h) When I see a bubble rise to the surface (AC), I yank the glove off my left hand and slowly kneel down. **(1i) Stretching my hand towards the puddle (AC),** I say, "Come on, baby! Please!" I make a fist and dip my knuckles in. **(1j) Feeling the warm water on my skin (AC),** I shout, "Yes, thank you, God, for these hot springs!"

Painstakingly, I remove all my clothes. **(1k) In five days (AP)** I've lost a lot of weight: I can drop my pants over my hips without unbuttoning them.

(1l) As I submerge myself in the warm water (AC), I let out a sigh. "Ohhh, boyyy! Thank you, Lord! Thank you." **(1m) In less than 30 minutes (AP),** the magic of the natural hot tub raises my body temperature enough to partially halt the hypothermic shivers.

(2)   Growing up in Maiden Rock, Wisconsin, on the banks of the Mississippi River, Rick Kraft used to play in the water all the time, **(2a) until that Fourth of July (AP) (2b) when he was 12 (AC).** A man who'd partied a little too hard had jumped into the river for fun and been swept away. Another man dived in to save him, and Rick's father and uncle went after him in a pontoon boat. The first man was lost. The second man was unconscious **(2c) when they pulled him into boat (AC).** It took days **(2d) before they found the first guy (AC). (2e) After that (AP),** Rick Kraft was scared of the Mississippi: Can't swim in there. You might bump into a body.

(2f) Now (AD) working as a cable technician, he had just finished his last, long job of the day and was a little bummed out. He wanted to get home and get out of his grey Comcast polo shirt, jeans and boots. His mother and sister were coming to his apartment, and he'd hoped to get home **(2g) early (AD)** to straighten up the place. **(2h) Now (AD)** he'd have to hurry. **(2i) As he entered 35W (AC),** he saw brake lights ahead and **(2j) at the last minute (AP)** decided to exit at 4th Street. It was 6.07.

(2k) Most days (AP), Sarah Mundy used the 35W Bridge to get to and

from her job at a market research firm in Bloomington. **(2l) This afternoon (AP),** it was hot. She'd rolled her window down and was listening to classic rock. She was casually dressed and was wearing a silver-spoon-handle ring her father had given her.

Her boyfriend, Ted, had called **(2m) <u>earlier</u> (AD)** and told her he was going to the gym. He'd be back **(2n) <u>in time</u> (AP)** to try the new slow-cooker sweet-and-sour beef that was bubbling in the kitchen.

(2o) Now (AD) (2p) as Sarah's red Caprice moved onto the bridge (AC), the ground underneath the car in front of her began to crumble. Clouds of dust flew. A sound as loud as thunder came from below. And **(2q) then (AD)** the car in front seemed to be sucked down. Sarah gripped her steering wheel **(2r) <u>as her car fell</u> (AC)**, hitting chunks of something, **(2s) then (AD)** fell again. Down, down, down. Her air bag erupted. Everything inside the car flew around. This was it—this was her time.

The exemplary TACs in the above excerpts can give us some idea of their uses in general in the narrative texts—they are profusely used to supply temporal information of various kinds throughout the development of a story. The adverbs *now* (2f, 2h, and 2o), *then* (2q and 2s), *early* (2g), and *earlier* (2m), together with those that are not exemplified in the two excerpts such as *later*, *soon*, *finally*, *eventually*, *meanwhile*, and so forth, are often used to indicate a temporal point with implicit reference to the time of some preceding event. The adverbial phrases, which mainly supply information of specific year, month, week, date, hour, and so forth, as in the case of (1b), (1d), (1e), (1f), (1k), (1m), (2a) (2e), (2j), (2k), (2l), and (2n), serve to indicate many pivotal points in the temporal structure of a narrative text. The adverbial clauses, with the advantage of their clause structure, typically set a reference point in time for their main clause by anchoring to a relevant event or situation, as can be seen in (1a), (1c), (1g), (1h), (1i), (1j), (1l), (2b), (2c), (2d), (2p), and (2r). What we can also observe about these TACs is that although they tend to be used individually, they may also be used in immediate succession as in the cluster of (1d), (1e), and (1f), the cluster of (2a) and (2b), and the cluster of (2o) and (2p).

Our analysis of the data as exemplified above starts with an evaluation of whether signaling episodic transitions is the predominant motivation for using TACs in a preposed position. For this purpose, the preposed TACs in the database, categorized as adverbs, adverbial phrases, and adverbial clauses, are divided into two groups: those used in paragraph-initial sentences and those in paragraph-internal sentences. The number of TACs of each category in the two groups are then compared. The rationale for making this comparison is based on the previous finding

that the structural units of paragraphs used in narrative texts generally correspond with their thematic units of episodes and subepisodes (Ji, 2008), and because of this correspondence, if preposed TACs are predominantly used to signal episodic transitions, they would occur far more frequently in paragraph-initial sentences than in paragraph-internal sentences. Otherwise their use cannot be attributed to serving this discourse function only. The finding of this analysis is provided in Table 1:

Table 1 Preposed TACs in paragraph-initial and paragraph-internal sentences

TACs	Paragraph-Initial	Paragraph-internal	Totals
Adverbs	58 (21%)	220 (79%)	278 (100%)
Adverbial Phrases	333 (51%)	315 (49%)	648 (100%)
Adverbial Clauses	187 (36%)	327 (64%)	514 (100%)

Table 1 lists the number of preposed TACs of each category used in paragraph-initial and paragraph-internal sentences, together with their total number. Also provided are the percentages of the TACs of each category in each type of sentence out of their total number. A comparison of these numbers makes it clear that the preposed TACs of all three categories are not predominantly used in paragraph-initial sentences. In fact, there are more adverbs and adverbial clauses used in paragraph-internal sentences than in paragraph-initial sentences, while the adverbial phrases are more evenly distributed across the two types of sentences. This finding shows that the use of preposed TACs in the narrative texts cannot be solely attributed to serving the function of signaling episodic transitions. In other words, if preposed TACs are functionally motivated, they are subject to the motivating factor throughout a narrative, whether at points of episodic transition or between sentences within an episode.

The result of the this analysis makes us realize that a more adequate account of the use of preposed TACs should be able to explain the motivation for their shared role as temporal information providers in both paragraph-initial and paragraph-internal sentences (even though the information they provide is not exactly of the same nature). For this reason, we concentrate our attention in the following data analysis on revealing the factor that motivates the use of preposed TACs as a whole. The approach we take in this attempt is to view the use of preposed TACs in association with the strategy language users generally adopt in comprehending temporal information in sequences of recounted events. We will first illustrate this approach in the next section and then report an analysis of our data in accordance with this approach.

3. Identifying the shared role of preposed TACs

Being ubiquitous throughout a narrative, temporal information is crucial to its comprehension. According to many studies (e.g., Chafe, 1979; Comrie, 1985; Declerck, 1991; Dowty, 1986; Fleischman, 1990, Givón, 1995; Haiman, 1985; Hopper, 1979; Tai, 1985), language users, when comprehending recounted events, would assume by default that the order in which the events are presented reflects the chronological order in which they actually take place in the story world. Following this *iconicity assumption* as it has been called (Fleischman, 1990; Hopper, 1979), they would take an incoming event as immediately following the previously mentioned event unless a different temporal relationship is indicated between them. As an illustration of how this assumption works, consider the following excerpt:[4]

(3)   She reached up, grasped the barrel of the gun and moved it away. "What kind of spectacle are you playing here?" she snapped. "There are women and children who are already scared."

The terrorist paused. Abdullah rushed across the gym. "What is happening here?" he said.

"This guy wants to execute me because I asked for bandages," she said.

Abdullah studied the two of them: his young gunman, the woman who stared him down. "There is nothing for you here," he said. "Go back and sit down and shut up."

Larisa returned to her place. Bolloyev lay back down.

As readers go through this excerpt, which recounts a series of interactions between a hostage and two terrorists with no indication about their temporal setting, they would assume that the events presented in this scenario occurred consecutively and contiguously in the story world. In other words, they would take the lack of temporal information in the narration as suggesting that time is not a relevant factor to how the events take place under the circumstance—they happened one after another in one time span, as in many scenarios of real life. However, when readers come to an event initiated by a temporal setting, the provided temporal information will override their default assumption for processing the immediately following event, making them interpret the relationship between this event and the preceding event accordingly. Such temporal information, as we can see from excerpts (4), (5), and (6) below,[5] is typically provided by preposed TAC:

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[4] Excerpt (3) is taken from *Beslan The Inside Story* by C.J. Chivers (*Reader's Digest*, Oct. 2007, p. 120).
[5] Excerpt (4) is taken from *Hanging from Cliffs* by Matthew Futterman (*Reader's Digest*, Sep. 1998, p. 105), excerpt (5) from *My Elephant Patient* by David Taylor (*Reader's Digest*, June 1996, p. 74), and excerpt (6) from *Life after Loss* by Mary A. Fischer (*Reader's Digest*, May 2007, p. 69).

(4)   I used whatever strength remained in my left arm, pushed up from my toes and reached, expecting to find the rocky version of a suitcase handle. Instead I found a two-inch ridge. Still, it worked out better than I'd expected. **(4a) A few seconds later (AP)** I was again moving all fours upward. **(4b) Soon (AD)** I stood atop a three-inch wide ledge.

(5)   I went outside. Ellie turned towards me and purred. From the elephant house, she'd plodded the half kilometer to where she knew she'd find me. **(5a) Several times in the past (AP)**, Jack had walked Ellie past my office, and because I'd given her biscuits on those walks, she'd remembered the route. **(5b) Now (AD)** I heard running footsteps, and Jack, face flushed, came puffing up.

(6)   Concerned by the tense tone of his wife's voice, he called her back from his car to ask, "Is everything OK?"

"Just come home," Adriann said.

(6a) As he pulled into the driveway (AC), Bill caught sight of his father-in-law curled in the foetal position on the ground, sobbing. Adriann was holding Alec in her arms. Probably nursing him, Bill thought. But why had she covered him with a towel? **(6b) As Bill walked closer (AC)**, Adriann blurted out: "He's dead. Don't look at him. Just remember how he was."

The three short excerpts provide us with two examples of preposed adverbs, adverbial phrases, and adverbial clauses respectively. From these examples we can see how preposed TACs, with the various types of temporal information they carry, may guide readers in comprehending the temporal relationship in a sequence of events: When going through excerpt (4), for instance, readers can follow the iconicity assumption in interpreting the temporal relationship between the events reported in the first two sentences (the third being one that expresses the narrator's assessment of her situation). When they encounter the adverbial phrase *a few seconds later* at the beginning of the fourth sentence, they are informed about the specific temporal gap between the event to be reported in this sentence and the event in the preceding one, thus putting an end to the iconicity assumption they have held so far. The adverb *soon* that leads the final sentence works in a similar way—the information it provides not only prevents the resumption of the iconicity assumption on the part of the readers but also informs them that the event recounted in this sentence did not happen right after the one reported in the preceding sentence but a short while afterwards.

From the same perspective, we can see that in reading excerpt (5), the readers can assume that the events recounted in the first two sentences occurred

consecutively and contiguously until the third sentence in which the verb in the past perfect form indicates that what was reported in this sentence had actually taken place before what was reported in the first two sentences. The adverbial phrase *several times in the past* used at the beginning of the fourth sentence, coupled with the past perfect forms of the verbs in the sentence, also interrupts the current line of narration by reporting what had happened at even earlier times. Eventually the adverb *now* is used at the initial position of the final sentence to bring the readers back into the temporal interval of the current line of narration.

The preposed adverbial clauses, as exemplified in (6), can be seen playing a similar role (albeit in their own characteristic way) as the other types of preposed TACs analyzed above. The use of the first adverbial clause breaks the sequence of the consecutive events reported in the first two sentences by referring to Bill's arriving home. This information establishes a new temporal point for what is to be presented in its main clause and at the same time ends the temporal span for the preceding event. What the second adverbial clause indicates to the readers is that Adriann did not blurt out what she had to say right after Bill arrived home but at the specific moment when Bill walked closer to her.

Taking the current approach also enables us to account for how preposed TACs, when used one after another in immediate succession, work together to specify the temporal relationships in a sequence of events in a more sophisticated way. Consider the examples in excerpts (7), (8), and (9):[6]

(7)　　　I forget to think about how strange it feels to be seated opposite a man other than Bob. **(7a) Hours later (AP)**, **(7b) as he walks me to my front door (AC)**, I kiss him on the cheek and tell him what a lovely evening it has been.

(8)　　　Her boyfriend, Ted, had called earlier and told her he was going to the gym. He'd be back in time to try the new slow-cooker sweet-and-sour beef that was bubbling in the kitchen.

　　　　(8a) Now (AD) (8b) as Sarah's red Caprice moved onto the bridge (AC), the ground underneath the car in front of her began to crumble…

(9)　　　**(9a) On Thursday (AP), (9b) December 1 (AP), (9c) five days into this disaster (AP),** I'm surprised to find myself in a large meadow without snow. Why no snow? I walk south where the ground turns from frozen to semi-mushy. As I spot a palm-size puddle of water about eight centimeters deep, I ask myself, Why isn't this frozen?

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[6] Excerpt (7) is taken from *Out of Tragedy A Gift* by Katy Hutchison (*Reader's Digest*, April 2007, p. 120). Excerpts (8) and (9) are parts of (2) and (1) respectively that were presented earlier.

In excerpt (7), where an adverbial phrase is used prior to an adverbial clause, it is the adverbial phrase that first indicates a major change in time by mentioning the amount of time that has elapsed after the preceding event. The following adverbial clause then specifies, within this new temporal interval, a particular moment at which the event in the main clause takes place. In this way the two TACs clarify how the event they lead is temporally related to the one in the preceding discourse. The two TACs in (8) work together in a similar way, except that the first TAC is an adverb, which is used initially to re-establish the current temporal line of narration after an intervening account relating to Sarah's husband. The following adverbial clause sets a more specific reference point in time by relating to where Sarah was. In (9), where three adverbial phrases are used in succession, the first two announce a major change in time by naming the particular day and date. This new temporal setting is further illustrated by the supplementary information supplied by the ensuing adverbial phrase. In all three cases, as we can see, the preposed TACs make joint contributions to specifying the temporal relationships with the preceding discourse. The use of these TACs in succession enables us to discern how they may serve the same function by each contributing in its own characteristic way.

The analysis of the above examples shows that the iconicity assumption is a computationally efficient strategy for processing temporal information in sequenced events, and the use of preposed TACs may be perceived as an optimal way to provide temporal information in collaboration with this strategy on the part of the writer—the use of preposed TACs (either individually or jointly in immediate succession) can nullify the iconicity assumption by signaling to the reader a variety of temporal relationships between the events they lead and the events that precede them. Serving such a 'signpost' function, these TACs are needed in many sequences of events in a narrative, as we can see from excerpts (1) and (2) presented earlier. As a result, they form a chain of temporal information providers for indicating the developments in time throughout a narrative, which is evidenced by their frequent occurrences in both paragraph-initial and paragraph-internal sentences as reported in Table 1. This distribution pattern of preposed TACs clearly indicates that they may be used anywhere in the episodic development of a narrative, whether at transitions of episodes or within them, and as the above analysis has demonstrated, they are used with the same motivation, i.e., to facilitate the comprehension of temporal relationships in sequences of recounted events by overriding the iconicity assumption.

Apart from the above revelation about how preposed TACs of different types are motivated to serve the same function throughout a narrative, the analysis from the current perspective also enables us to explain their different distributions across

paragraph-initial and paragraph-internal sentences in a coherent way. In this regard, if we take another look at Table 1 which lists the numbers of the preposed TACs used in paragraph-initial and paragraph-internal sentences, we will be able to see that although all three types of preposed TACs share the same role of specifying temporal relationships in a narrative, each group actually have their own duties to perform and thus occur with different frequencies in the two positions. From this point of view, we can see that the preposed adverbs such as *then*, *now*, *later*, *soon*, *finally*, *meanwhile*, and so forth are typically used to indicate a new temporal point in relation to the time of a closely related preceding event. Given this role of the preposed adverbs and the fact that it is within paragraphs rather than at their beginnings that closely related events are usually presented, the great majority of them (79%) being used in paragraph-internal sentences falls into place—their use is pragmatically constrained by the discursive context. The same analysis also applies (though to a somewhat lesser extent) to the preposed adverbial clauses of which 64% are used in paragraph-internal sentences. In their case, their way of establishing a reference point in time by anchoring to a thematically related event or situation also causes them to be more often than not used in the paragraph-internal context. The adverbial phrases, on the other hand, are mainly suppliers of more concrete temporal information involving specific year, month, week, date, hour, and so on. As such, they naturally form the skeleton of the temporal line throughout a narrative and therefore are used more or less equally frequently in paragraph-initial and paragraph internal sentences.

4. Postposed TACs and their function

Following the same approach as adopted in the above section, we now conduct an analysis of how postposed TACs function as temporal information providers in the narrative texts. Our analysis can be illustrated from the examples in excerpts (10) and (11)[7] below:

(10)   **(10a) The next morning (AP),** a campground employee gave Hench a ride to the trailhead to start his 24-kilometer hike to Lake Italy. **(10b) As the truck pulled away (AC),** the driver mentioned that a storm was expected to blow through **(10c) later in the week (AP)**. "Don't know whether it's going to snow," he told Hench…

     (10d) As he lay in his sleeping bag that night (AC), he heard the wind pick up **(10e) until it was ripping across the lake with 80km/h gusts (AC)**.

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[7] Excerpt (10) is taken from *Lost* by Lynn Rosellini (*Reader's Digest*, Oct. 2008, p. 59) and excerpt (11) is part of (2) presented earlier.

(10f) By Thursday morning (AP), the snow was coming down sideways.

Early-season storms in the Sierra Nevada are rare, surprising tourists who venture into the backcountry in T-shirts, lulled by warm summer temperatures down below. **(10g) On a single day a few years back (AP)**, more than two dozen hikers were stranded at different points in the mountains **(10h) <u>when an October storm roared across the range</u> (AC)**, dropping 120 centimeters of snow. Three experienced climbers, blue and frostbitten, were fortunate to have been rescued from the face of El Capitan in Yosemite National Park, 96 kilometers northwest of Hench's campsite; two others in their party perished.

(11)   **(11a) Most days (AP),** Sarah Mundy used the 35W Bridge to get to and from her job at a market research firm in Bloomington. **(11b) This afternoon (AP),** it was hot. She'd rolled her window down and was listening to classic rock. She was casually dressed and was wearing a silver-spoon-handle ring her father had given her.

Her boyfriend, Ted, had called **(11c) <u>earlier</u> (AD)** and told her he was going to the gym. He'd be back **(11d) <u>in time</u> (AP)** to try the new slow-cooker sweet-and-sour beef that was bubbling in the kitchen.

(11e) Now (AD) (11f) as Sarah's red Caprice moved onto the bridge (AC), the ground underneath the car in front of her began to crumble. Clouds of dust flew. A sound as loud as thunder came from below. And **(11g) then (AD)** the car in front seemed to be sucked down. Sarah gripped her steering wheel **(11h) <u>as her car fell</u> (AC)**, hitting chunks of something, **(11i) then (AD)** fell again. Down, down, down. Her air bag erupted. Everything inside the car flew around. This was it—this was her time.

The two excerpts contain six postposed TACs and quite a few preposed ones. A close examination of these postposed TACs vis-à-vis their preposed counterparts can help us better observe the way they function as temporal information providers in the narrative texts. The first postposed TAC (10c) is an adverbial phrase used in an embedded object clause. It serves to indicate in this clause the time when the storm was expected to blow through. Since it is used in a postposed position, the temporal information it provides is only relevant to the occurrence of the storm. In contrast, the temporal setting for what is reported in its matrix clause and how the matrix clause is temporally related to the event in the preceding sentence is specified by the preposed adverbial clause *as the truck pulled away*. Another postposed adverbial phrase is (11d), which functions in essentially the same way as (10c). The adverbial phrase *in time* only expresses how soon Ted would want to get home and does not serve to indicate a temporal development in this part of the narrative. The two

excerpts also contain three postposed adverbial clauses. The first one (10e), led by *until*, is used to define the moment when the increasing of the wind force eventually ended. In the way typical of an adverbial clause, it provides a reference point in time through the description of a situation. However, the indication of this reference point, as in the case of the two adverbial phrases just discussed, is also relevant only to the event the adverbial clause modifies. Following the same line of analysis we can account for the other two adverbial clauses (10h) and (11h) in similar terms. Example (11c) is a postposed adverb, which, coupled with the past perfect form of the verb in the sentence, is used to indicate when Ted called, i.e., prior to the events being reported in the current line of narration. Again, this postposed TAC plays no part in indicating the temporal development of the narrative. Based on the analysis of these examples, it becomes clear that the temporal information provided by the postposed TACs does not interfere with the main temporal line established by the preposed TACs. In contrast to the role of the preposed TACs in establishing the main temporal line, the postposed TACs apparently are used to supply temporal information in a complementary way.

The analysis we have just conducted of the postposed TACs is in keeping with the characterization of postposed adverbial clauses made by some previous studies (e.g., Chafe, 1984; Ramsey, 1987; Thompson, 1987). According to these studies, postposed adverbial clauses, being related only to their main clause, play a more local role by supplying temporal information to complete what the main clause has to say. Based on the result of our analysis presented above, this characterization of postposed adverbial clauses can also apply to postposed adverbs and adverbial phrases. Nevertheless, the analytic framework offered by the present study enables us to see more than what has been revealed by this characterization. That is, in serving as temporal information providers postposed TACs and their preposed counterparts are used in a complementary way: While preposed TACs are responsible for specifying temporal relationships in sequences of events in the main line of narration, postposed TACs perform the duty of supplying information that does not interfere with this line.

Our analysis of the postposed TACs vis-à-vis their preposed counterparts is furthermore supported by the pattern of their distribution across paragraph-initial and paragraph-internal sentences, which is reflected in Table 2:

Table 2 Postposed TACs in paragraph-initial and paragraph-internal sentences

TACs	Paragraph-Initial	Paragraph-internal	Total
Adverbs	2 (9%)	21 (91%)	23 (100%)
Adverbial Phrases	67 (26%)	187 (74%)	254 (100%)

Adverbial Clauses	73 (20%)	295 (80%)	368 (100%)

Comparing the number of postposed TACs used in paragraph-initial and paragraph-internal sentences, we can see that they occur significantly more frequently in the latter than in the former. This distribution pattern, in our view, fits in with our above analysis of the postposed TACs (as well as the preposed ones), for the following reason: The paragraph as an intermediate structural unit in a narrative text tends to correspond to a thematic unit of episode or subepisode, and the beginning of a paragraph is usually the spot to introduce a major temporal change, among other types of thematic changes, associated with a new sequence of events (Ji, 2002, 2008). From the perspective of the current analysis, this means that at the beginning of a paragraph, there is a higher demand for preposed TACs rather than postposed ones to be used because, as the earlier analysis indicates, it is the former that are responsible for specifying the temporal relationships between sequences of events. For the same reason, postposed TACs should have a minor role to play in paragraph-initial sentences but a major role to play in paragraph-internal sentences providing local temporal settings for the events they modify. In accordance with this reasoning, the predominant use of the postposed TACs in paragraph-internal sentences can be regarded as the direct consequence of their role in establishing the temporal structure of the narrative texts.

Based on the same reasoning that has just been presented, the contrast in function between postposed TACs and their preposed counterparts should also be reflected in the frequency of their occurrences in paragraph-initial sentences—at this position preposed TACs would be used far more frequently than postposed ones since it is typically the former that shoulder the responsibility for introducing crucial changes in the temporal line of a narrative. This analysis is confirmed by their contrastive patterns of distribution in paragraph-initial sentences displayed in Table 3:

Table 3 Preposed and postposed TACs in paragraph-initial sentences

TACs	Preposed	Postposed	Total
Adverbs	58 (97%)	2 (3%)	60 (100%)
Adverbial Phrases	333 (83%)	67 (17%)	400 (100%)
Adverbial Clauses	187 (72%)	73 (28%)	260 (100%)

Taking a quick look at their occurrences in paragraph-initial sentences, we find preposed TACs of all three categories are used significantly more frequently than postposed TACs in paragraph-initial sentences. This finding, in keeping with the

results from Ji (2002, 2008), specifically indicates that the introduction of a new temporal setting associated with the beginning of an episode is mostly realized by preposed TACs, which in so doing clarifies the temporal relationship between the events to be reported in the coming episode and those in the preceding one. On the other hand, the fact that only a small number of postposed TACs are used in paragraph-initial sentences clearly suggests that they hardly contribute to indicating the temporal relationships at episodic transitions.

Despite their infrequent occurrences, postposed TACs are still used in some paragraph-initial sentences. In order to find out what role they play as opposed to that of their preposed counterparts in this position, an analysis is conducted of these TACs one by one. Our finding about their use can be illustrated through the following examples:[8]

(12)   Cardiothoracic surgeon John Mullen knew Amie's surgery would require the most preparation. Herman's lungs would have to be carefully inspected before the surgeons could commit themselves to removing Amie's lungs.

(There is a full paragraph here about what would be done in the surgery)

Surgery began **(12a) <u>at 8:36 a.m.</u> (AP).** Mullen carefully cut through Amie's breastbone and spread the ribs, preparing her for the implanted lobes.

(13)   Kanzius had a rare form of B-cell leukemia—a cancer that attaches itself to the cells that fight disease. Keating thought a different chemo regiment might work.

Kanzius started treatments in Erie **(13a) <u>that September</u> (AP),** continuing them at a hospital in Florida **(13b) <u>when he and Marianne went south for the winter</u> (AC).** She became his full-time caregiver, sitting with him over long hours while chemicals dripped through an IV attached to a vein in his hand.

(14)   Christmas lights were still sparkling on the exterior of the Mercantile Bank **(14a) <u>on Tuesday morning</u> (AP) (14b) <u>January 10</u> (AP), (14c) <u>when Lucy Medina arrived for work</u> (AC)**. A new year with all its promises lay ahead of her—and the shock of a recent robbery was beginning to recede. Before plunging into her workday schedule as a senior teller, she made a quick phone call to check in with her fiancé.

Lucy's supervisor, Karen Webb, who had also survived the gunpoint stickup **(14d) <u>on November 16</u> (AP)**, arrived **(14e) <u>before 8 am</u> (AP)**. Karen opened the night drop and the drive-through window, preparing the bank, located in a strip mall less than two kilometers from Walt Disney World, for

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[8] Excerpt (12) is taken from *For Amie* by Lynne Schuyler (*Reader's Digest*, March 2004, p. 68), excerpt (13) from *Sparks of Genius* by Peter Panepento (*Reader's Digest*, April 2007, p. 49), and excerpt (14) from *The Stickup* by Christopher W. Davis (*Reader's Digest*, Jan. 2007, p. 82).

business. The day started in routine fashion.

Excerpts (12), (13), and (14) contain several typical examples of the postposed TACs used in paragraph-initial sentences. In (12), which consists of three paragraphs, the initial sentence of the third paragraph announces the start of the operation. In this sentence the exact time of the operation, which forms a point in the temporal development of the narrative, is provided by the adverbial phrase *at 8:36 a.m.*in a postposed position. Using a postposed TAC in this context seems to have something to do with the thematic transition from the first two paragraphs to the third—with the first two paragraphs being devoted to specifying what is to be involved in the 'surgery', a cohesive transition is realized when the third paragraph starts with the same theme. A similar analysis also applies to the use of (13a) and (13b) in the initial sentence of the second paragraph in (13). In this sentence, because 'Kanzius' is kept as a continued theme from the first paragraph, the temporal information provided by both (13a) and (13b) is placed in a postposed position. What is recounted in the first part of this sentence is temporally located in *that September*, and as the second part of the sentence goes on to mention the continuation of Kanzius' treatment in Florida, another postposed TAC, this time an adverbial clause, is used to provide its temporal setting. In excerpt (14), which also consists of two paragraphs, the initial sentence of the first paragraph, being the very beginning of the story, provides some crucial information of orientation for the story. In presenting such information, the description of the scene takes the initial position and the temporal information, carried by (14a) and (14b), is placed afterwards, whereas (14c), a narrative TAC, introduces one of the main characters into the story.[9] Both (14a) and (14b), even though used in a postposed position, establish the temporal point from which the story develops. Since the transition from the first paragraph to the second in (14) is focused on introducing Lucy's supervisor in the initial sentence of the second paragraph, the time of her arrival, indicated by (14e), is also placed in a postposed position. The other postposed TAC (14d), serving as the temporal adverbial of the relative clause, only provides information about the time of an earlier stickup which does not form part of the current line of narration.

As illustrated in the above analysis, some postposed TACs used in paragraph-initial sentences can also contribute to the main temporal line of a narrative. In this respect they appear to play a similar role as their preposed counterparts. However, as our analysis also suggests, these postposed TACs actually serve as temporal information providers in a way different from that of preposed

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[9] According to Quirk et al. (1985: 1084), Thompson (1987), and Couper-Kuhlen (1989), a postposed adverbial clause like (14c) does not serve as a true temporal information provider for its main clause. Instead, it presents an unfolding event in a temporal setting provided by the main clause.

TACs. Unlike preposed TACs, which form a direct thematic link between the preceding paragraph and the one they initiate through an indication of temporal change, these postposed TACs do not serve as such a link, since in their case either a temporal link is unnecessary, as in the context where (14a) and (14b) are used, or a different thematic link is preferred, as in the contexts where (12a), (13a), (13b), and (14e) are used. Based on this observation, it is clear that the use of these postposed TACs is constrained by the way a new thematic unit is started, which results from the strategy adopted for the organization of thematic development at a higher level. Because of this constraint, the temporal information provided by the postposed TACs, even though included into the main temporal line of a narrative, is presented in the shadow of a more prominent theme.

5. Conclusions

The present study has demonstrated that the characterization of the discourse function of preposed TACs in English mainly in terms of their role in indicating episodic transitions cannot adequately account for the their uses in general in narrative texts. The perspective proposed by this study, which views their use essentially as an effort to collaborate with our default strategy for comprehending temporal information in sequenced events, proves to be useful, in that it reveals their shared role in specifying the temporal relationship between the event or situation they lead and the preceding discourse and in establishing the temporal line of a narrative. Taking this perspective, we can better explain not only the overall distribution of preposed TACs in both paragraph-initial and paragraph-internal sentences but also why certain members of them are used more or less in either position. In contrast with the function of preposed TACs, their postposed counterparts appear to serve a complementary function—they tend to be used in a postposed position when their temporal information is needed without interfering with the main line of narration. This contrast in function between them and preposed TACs is evidenced by the different patterns of their distribution in the narrative texts.

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98 年度專題研究計畫研究成果彙整表

計畫主持人：姬少軍　　　　計畫編號：98-2410-H-034-023-

計畫名稱：敘事文中的時間訊息是如何表達的？

成果項目			量化			單位	備註（質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等）
			實際已達成數（被接受或已發表）	預期總達成數(含實際已達成數)	本計畫實際貢獻百分比		
國內	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%		
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		
國外	論文著作	期刊論文	0	1	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%	章/本	
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

| | | 其他成果
(無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。) | 無。 |

	成果項目	量化	名稱或內容性質簡述
科教處計畫加填項目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與（閱聽）人數	0	

國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

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1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

   ■達成目標

   □未達成目標（請說明，以 100 字為限）

   　　□實驗失敗

   　　□因故實驗中斷

   　　□其他原因

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2. 研究成果在學術期刊發表或申請專利等情形：

   論文：□已發表 ■未發表之文稿 □撰寫中 □無

   專利：□已獲得 □申請中 ■無

   技轉：□已技轉 □洽談中 ■無

   其他：（以 100 字為限）

   研究成果已用英語寫成論文，進一步修改后可向國際語言學期刊投稿。

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3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以 500 字為限）

   本項研究在研究角度上有創新，應該會在國際語言學期刊上得以發表。