

# Topic Chains in Chinese Discourse

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The topic chain is a frequently used structure in Chinese. In this article, its structural characteristics and its use in written narrative text are examined. Three major claims are made: (a) The topic of a chain does not have to overtly occur in the chain-initial clause as commonly believed; (b) depending on the context, a zero noun phrase (NP) in a sentence-initial clause may be coreferential either cataphorically with an overt topic NP within the same sentence, or anaphorically with an NP in the previous sentence; and (c) clauses with sentence/chain-initial zero NPs typically form background text. These findings suggest that the current definition of *topic chains* be reconsidered.

In the study of Chinese discourse, it is frequently observed that noun phrases (NPs) understood from context are left unspecified. These unspecified empty positions are analyzed as coreferential with overt NPs, usually in the preceding text. (1) is an example in which the unspecified NPs are marked as “Ø.” The subscriptions indicate their referential relationship with the overtly mentioned NPs. In later discussion, the Øs are referred to as *zero(s)*.

- (1) 那辆车<sub>i</sub> 价钱太贵,                      Ø<sub>i</sub> 颜色也不好,      我<sub>j</sub> 不喜欢 Ø<sub>i</sub>,      Ø<sub>j</sub> 不想买 Ø<sub>i</sub>.  
*Na-liang che<sub>i</sub> jiaqian tai gui, Ø<sub>i</sub> yanse ye bu hao, wo<sub>j</sub> bu xihuan Ø<sub>i</sub>, Ø<sub>j</sub> bu xiang mai Ø<sub>i</sub>.*  
**that-CL car**, price too high, color also not good, **I** not like, not want buy.  
 Ø<sub>j</sub> 昨天去看了一下 Ø<sub>i</sub>,                      Ø<sub>j</sub> 还开了一会儿 Ø<sub>i</sub>,      Ø<sub>j</sub> 还是不喜欢 Ø<sub>i</sub>.  
*Ø<sub>j</sub> Zuotian qu kan le yixia Ø<sub>i</sub>, Ø<sub>j</sub> hai kai le yihuir Ø<sub>i</sub>, Ø<sub>j</sub> haishi bu xihuan Ø<sub>i</sub>.*  
 yesterday go see PRT a-bit, also drive PRT a-while still not like.  
 ‘That car is too expensive. The color is not good either. I don’t like it and (I) don’t want to buy it.  
 Yesterday, I went there to take a look. I even drove it for a while. But still I didn’t like it.’

In (1), as we can see from the marking, 10 unspecified NPs are identified. Those subscribed with “i” are coreferential with *na-liang che* ‘that car’ (in bold) in the first clause; the ones subscribed with “j” are coreferential with *wo* ‘I’ (also in bold) in the third clause. In Chinese linguistics, the clause(s) with the unspecified NP(s) and the one with the overt coreferential NP are considered to form a chain with the overt NP being the topic of the chain. This structure is commonly referred to as the *topic chain* (Chu, 1998; Li & Thompson 1979, 1981; Shi, 1989, 1992, 2000; Tsao, 1979, 1990).

The example in (1) provides a glimpse of what Li and Thompson (1979) called “a massive non-specification of arguments” (p. 317) in Chinese. It also illustrates an important difference between Chinese and English. That is, in English, anaphoric pronouns, such as *I* and *it* in (1), are used extensively, and zero anaphors, indicated by *I* in the parentheses in (1), are grammatically constrained (Chomsky, 1981). By contrast, Chinese makes much less use of anaphoric pronouns and a pervasive use of zero NPs. Much of the use of zero NPs in Chinese, as can be seen in (1), can be accounted for by topic chains.

In this article, I examine the structure of the topic chain and its definitions provided by previous studies. I also present some phenomena and features of topic chains that have not been discussed in the previous literature. More specifically, I focus on the so-called “first link,” that is, the first clause in a topic chain where the overt topic is commonly believed to occur. This article shows that, first, the topic of a chain does not have to occur overtly in the first link. Instead, it may appear in the middle of a chain, with a coreferential zero NP in each of the preceding clauses in the chain. This results in cataphoric reference. Second, a zero NP in a sentence-initial clause does not have to be coreferential with the topic of the rest of the sentence. It may belong to a different chain. Third, clauses with sentence/chain-initial zero NPs typically form background text. These clauses are in sharp contrast to clauses with anaphoric zero NPs, which usually constitute foreground text. These findings not only enhance researchers’ knowledge of the structure of topic chains but also force researchers to reconsider the definition of topic chains.

This study is based on examinations of written narrative text. The examples used and the data for this study are drawn from *Luotuo Xiangzi*, a novel written by the well-known contemporary Chinese writer Lao She (1936). Two different versions of the English translation of this novel are used. The reason will become clear later in this article.

## DEFINITIONS OF TOPIC CHAIN AND CENTRAL ISSUES

Generally speaking, a *topic chain* is a chain of clauses sharing a single topic. The topic is usually mentioned once at the beginning of a chain in the first clause (called *the first link*). Subsequent mentions of the same topic are left unspecified.

In traditional analyses, the unspecified NPs are analyzed as ellipses; in more recent approaches, they are analyzed as zero anaphora (or zero pronoun) coreferential with the overt topic at the beginning of the chain (for zero anaphora, cf. C.-T. J. Huang, 1984; Y. Huang, 1994, 2000; Li & Thompson, 1979; Pu, 1995, 1997; Xu, 1986; for anaphora in general, see Aoun, 1985; Fox, 1996; Van Hoek, 1997; Y. Huang, 2000; Reinhart, 1983). The most simple and typical form of a topic chain is shown in (2). In this example (and the examples hereinafter), the overt topic of the topic chain under discussion is in bold; the letter marking (i.e., (a), (b), etc.) indicates reference points for discussion. They roughly correspond to clauses in continuous text.

- (2) (a) **我** 打開冰箱, (b) Ø 倒了一杯牛奶, (c) Ø 做了一個三明治。  
 (a) **Wo** dakai bingxiang, (b) Ø dao le yi-bei niunai, (c) Ø zuo le yi-ge sanmingzhi.  
 (a) I open fridge, (b) Ø pour PRT one-cup milk, (c) Ø make PRT one-CL sandwich.  
 'I opened the fridge, poured a glass of milk and made a sandwich.'

In (2), the topic, that is, *wo* 'I' appears overtly once in the first clause in (a). Later mentions of the same topic in (b) and (c) are left out. These zero NPs are coreferential anaphorically with the overt topic in (a). Thus, (a)–(c) form a topic chain with the overt topic in the chain-initial position.

As we can see, topic chains are a cross-clausal phenomenon. Specific analyses of topic chains in Chinese have been carried out mainly by researchers working in the functional framework and discourse analysis. A number of scholars have attempted to define the topic chain in terms of its discourse and/or syntactic characteristics.

Tsao (1979) is believed to be the first to use the term *topic chain*.<sup>1</sup> He stated that

I have come to the conclusion that a topic chain, a stretch of actual discourse composed of one, and often more than one, clause, *headed by a topic* [italics added] which serves as a common link among all the clauses, actually functions as a discourse unit in Chinese. (p. vii; also see Tsao, 1990, p. 63)

Li and Thompson (1981) defined a topic chain as a chain of clauses "in which a referent is referred to in the first clause, and then there follow several more clauses talking about the same referent but not overtly mentioning that referent" (p. 659).

In the analysis, the structure of the topic chain has basically been equated to a sentence. Tsao (1990) stated that "we have also found that a sentence in Chinese can be roughly defined as a topic chain, which is a stretch of discourse composed of one or more comment clauses sharing a common topic, which heads the chain" (p. 63). Shi (1989, p. 223) claimed that the topic chain is a basic unit in Chinese syntax. It has all the syntactic functions normally assumed for an S' in Chinese. In Chu (1998, pp. 370–371), the notion

<sup>1</sup>See also Chu (1998) for a general review of the study of topic chains.

of topic chain is used to define the notion of sentence. The topic chain is considered to be one of the formal devices to hold clauses of a sentence together.

When one is defining the notion of topic, there exists an unsettled issue as to whether or not a topic can be identified within the domain of a clause (or a single-clause sentence in isolation). Some researchers answer positively to this question. To them, a sentence or clause is usually made up of a topic followed by a comment (Li & Thompson, 1981; Shi, 1989, 1992, 2000; Tsao, 1979, 1990). Consequently, a topic chain is “a sequence of topic comment constructions juxtaposed together” (Shi, 1989, p. 223; Shi, 1992, p. 15) with repeated mentions of the same topic coded as zero. Chu (1998), however, presented a more restricted view. He contended that, because topic is mainly a discourse notion, it can be identified only on the level of discourse when it serves as an interclausal link. Consequently, he defined a topic chain as “a set of clauses linked by a topic in the form of ZA [zero anaphora]” (p. 324). To him, there is no point in talking about a topic within a single clause–sentence.

Referring back to (2), note that two typical characteristics of topic can be seen. The first is that topic is usually designated by a definite NP; the second is that it also serves as the subject and appears in the initial position of the first clause. Definiteness is one of the characteristics of topic discussed frequently in the literature (Chafe, 1976; Givon, 1987, 1992; Gundel, 1977, 1985). Because topics are at the center of discourse, they should be something that the hearer–reader is able to uniquely identify, something that is known to the hearer–reader and presents given information (Brown & Yule, 1983; Firbas, 1964; Keenan & Schiefflin, 1976). Such an NP would typically be a definite NP. Because both the speaker–writer and the hearer–reader need to identify what is being talked about at the beginning of a discourse unit, it is most natural for a topic to be identified early, most probably at the beginning of a sentence or a topic chain.

Given this nature, the structure of (2) is the most typical form of the topic chain and causes the least controversy in analysis. In fact, the definitions presented earlier are all based on this default form. An issue for debate involves two features of some topic chains that deviate from this norm: (i) an indefinite NP is introduced in the first link, and (ii) the indefinite NP is in a postverbal position. (3) and (4) illustrate:

- (3) (a) 隔壁有一個新飯館， (b) Ø 昨天才開門。  
 (a) *Gebi you yi-ge xin fanguan,* (b) *Ø zuotiancai kaimen.*  
 (a) Next-door exist **one-CL new restaurant**, (b) Ø yesterday PRT open-for-business.  
 ‘There is a new restaurant next door that opened for business only yesterday.’

- (4) (a) 她買了一輛車， (b) Ø 是美國車。  
 (a) *Ta mai le yi-liang che,* (b) *Ø shi Meiguo che.*  
 (a) she buy PRT **one-CL car**, (b) Ø is American car.  
 ‘She bought a car, (and it) is an American car.’

The first link in (3a) is a presentative clause that follows a typical pattern by introducing a new entity into discourse in the form of an indefinite NP, that is, *yi-ge xin fanguan* 'a new restaurant' in the postverbal position. This new entity is picked up in the following clause in (b) as a topic and coded as a zero. In (4), the first link in (a) has a transitive verb, which also introduces a new entity, that is, *yi-liang che* 'a car'. The new entity is also picked up in the following clause as topic, indicated by the zero in the subject position in (b). The issue for debate is whether the newly introduced NPs, *yi-ge xin fanguan* 'a new restaurant' and *yi-liang che* 'a car' should be analyzed as topics in (a). Some researchers (e.g., Shi, 1992; Tsao, 1990) have argued that such nouns are topics when they are first mentioned, whereas others (e.g., Chu, 1998) think they do not become topic until they are referred to by the zero anaphora in second clauses.

As can be seen, this discussion of topic chains in the literature is based on three commonly held beliefs about the features of topic chains: (i) a topic is always mentioned in the first link, (ii) a topic in a chain is always referred to anaphorically by a zero in the following clause(s), and (iii) a topic chain basically forms a sentence in Chinese.

In the following section, counterexamples to these common beliefs will be presented and discussed. This presentation and discussion will be organized according to two types of links found in this study, chain-initial cataphoric links and sentence-initial anaphoric links. In the discussion of these findings and their implications, I make reference to the definitions of the topic chain presented earlier.

## FINDINGS OF THIS STUDY

### Chain-Initial Cataphoric Links

Whereas (2)–(4) are frequently occurring patterns of topic chains in Chinese in which the overt mention of a topic precedes a coreferring zero, it is not uncommon to encounter instances such as (5) and (6) in written narrative text. The examples given from this point to the end of the article are from *Luotuo Xiangzi* by Lao She (1936). The English translations were done by either Evan King (Lao She, 1945) or Jean James (Lao She, 1979).

- (5) ... (a) Ø 想到這裡, (b) 她甚至想獨自回娘家,  
 ... (a) Ø *Xiang dao zheli*, (b) *ta shenzhi xiang duzi hui niangjia*,  
 ... (a) Ø think to here, (b) *she* even want by-herself return home,

(c) Ø 跟祥子一刀兩斷, ...

(c) Ø *gen Xiangzi yidaoliangduan*, ...<sup>2</sup> (p. 135)

(c) Ø with Xiangzi break-up

'When she thought of that she almost considered returning home alone

and just severing relations with Hsiang Tzu with one stroke.’ (Lao She, 1979; translated by James)

- (6) ... (a) 祥子一口气跑回了家。 (b) Ø 抱著火, (c) Ø 烤了一陣,  
 ... (a) *Xiangzi yikouqi paohui le jia.* (b) Ø *Bao zhe huo,* (c) Ø *kao le yi-zhen,*  
 ... (a) Xiangzi all-the-way run-back PRT home. (b) Ø hug PRT fire, (c) Ø toast PRT a-while,  
 (d) 他哆嗦得像風雨中的樹葉。  
 (d) *ta duosuo de xiang fengyu-zhong de shuye.*  
 (d) he shake PRT like storm-in MOD leave.  
 (e) 虎妞給他沖了碗姜糖水,  
 (e) *Huniu gei ta chong le wan jiangtangshui,*  
 (e) Huniu for him make PRT bowl ginger-sugar-water,  
 子似的抱著碗一氣喝完。  
 (f) 他傻 (g) Ø 喝完,  
 (f) *ta shazi-shide bao zhe wan yi-qi he-wan.* (g) Ø *he wan,*  
 (f) he fool-like hold PRT bowl one-gulp drink-finish. (g) Ø he drink finish  
 (h) 他鑽了被窩, (i) Ø 什麼也不知道了……  
 (h) *ta zuan le beiwo,* (i) Ø *shenme ye bu zhidao le.* (p. 154)  
 (h) he get-under PRT cover, (i) Ø anything PRT not know PRT....

‘Happy Boy pulled his rickshaw back home, running all the way without stopping. Hugging the fire, he toasted himself for a while: he was shivering like a leaf in the wind and rain. Tiger Girl brewed him a cup of preserved ginger tea. He took it like an imbecile, grasping the cup in both hands and drinking the hot brew at one gulp. When he had finished it he wriggled down under the covers on the brick bed and lay there unconscious of anything around him, ...’

(Lao She, 1945; translated by King)

The item in (5) is a topic chain, with the topic being *ta* ‘she’. The topic, however, is not overtly mentioned in the first link. Rather, it appears in the second clause in (b). The zero NP occurring in the first link is coreferential cataphorically with the topic *ta* ‘she’ in the following clause in (b). In (6), there are two such topic chains. The first one (a)–(d) has two cataphoric links: one is *baozhe huo* ‘hugging the fire’ in (b) and the other is *kao le yizhen* ‘toasted himself for a while’ in (c), each having a zero NP coreferential cataphorically with the topic *ta* ‘he’ in (d).<sup>3</sup> The second topic chain is (g)–(i) in which the zero NP in (g) is coreferential, again cataphorically, with the topic *ta* ‘he’ in (h). These examples indicate that topics do not have to occur overtly in the first link as commonly believed. They can occur in the middle of a chain, with a coreferential cataphor in each of the preceding links.

<sup>2</sup>The ellipsis dots at the beginning of an example indicate that the example is in a paragraph-medial position. Examples without these dots are at the beginning of a paragraph. The full stop after the three dots is to show that there is a sentence boundary at this point.

<sup>3</sup>In such cases, the second clause with the zero NP—for example, the one in (6c)—is definitely not in the first link and not in the chain-initial position. However, its nature as a cataphoric link is the same as those in the first link. In the text count described later in this article, a case such as (6b)–(6c) (with multiple cataphoric links in a row) is counted as one case of chain-initial cataphoric link.

Reading through narrative texts, one may take note that zero NPs in cataphoric links, such as the ones in (5) and (6), usually refer to active topics continued from previous discourse. For example, the zeros in (6b) and (6c) not only are coreferential cataphorically with *ta* 'he' in (6d) but also refer to the same referent as the topic in (6a) (i.e., *Xiangzi*). In other words, *Xiangzi* in (6a) is the antecedent of both the zeros in (6b)–(6c) and the pronoun *ta* 'he' in (6d). Then, the question arises, How do we know that the zeros in (6b) and (6c) form a cataphoric chain with *ta* 'he' in (6d) rather than forming an anaphoric chain with *Xiangzi* in (6a)? The answer to this question has to take the boundary of text units into consideration.

An important detail of (6a)–(6d) is that there is a sentence boundary immediately before (6b) (indicated by the full stop in the written text). This sentence boundary is crucial in determining the boundary of the topic chain and the direction of the reference of the zeros in (6b)–(6c). With the sentence boundary in that position, and when an overt NP can be identified in the subsequent clause in (6d) as coreferential with the zeros in (6b)–(6c), the zeros in (6b)–(6c) are bound to be interpreted as cataphors referring to *ta* 'he' in (6d), rather than to *Xiangzi* in (6a). In other words, when two conditions are met—when (i) a sentence boundary is present in front of the clause with a zero and (ii) an overt NP can be identified in the clause after the zero within the same sentence—the zero must be interpreted as a cataphor. If, for example, the full stop at the end of (6a) were to be moved to the position after (6c), the zeros in (6b) and (6c) would then be interpreted as anaphors coreferential with *Xiangzi* in (a). For the second condition, if an overt coreferential NP cannot be identified within the same sentence, the zeros will also be interpreted as anaphors—for example, in (1).

At this point, before I move on, some explanation of the sentence in Chinese and the way to identify sentences in this study is in order. Sentence is one of the most poorly defined notions in Chinese with no generally accepted criteria. In traditional analysis, the notion has always been defined psychologically as a unit that is "complete in meaning" (Fang, 2001; Wang, 1956).<sup>4</sup> In writing, full stops are used rather subjectively when it is felt (by the writer) that there is a major break in the discourse. Thus, in actuality, full stops are used to divide discourse into subunits of single or multiple clauses. These subunits are between the level of clause and the level of larger discourse units such as paragraphs, but no viable structural definition has been proposed for them. Chu (1998), in the first and the most extensive treatment of Chinese discourse structure in the field, proposed calling these units *the discourse sentence*. Efforts made to define such units seem to have identified a certain degree of structural consistency (see also Cumming, 1984). In this study, full stops used in *Luotuo Xiangzi* are used as a criterion to recognize boundaries of such units and, for the lack of a better term, these units are called *sentences*. Although it is not completely sci-

<sup>4</sup>Also see the entry for *juzi* 'sentence' in the *Encyclopedic Dictionary of Chinese Linguistics* (Chen, 1991).

entific to do so, given the limited means available, it is workable, especially when the author is a first-rate writer who has a good sense of how to organize discourse.

Now, I return to the examples. Whereas (5) and (6) contain cataphoric links for a continuous topic (i.e., the same topic is talked about in the immediately preceding text), there are other situations in which cataphoric links are also used. For example, cataphoric links can also be used when an old topic is resumed after interruption. This means that the referent of the cataphoric zero(s) is not mentioned in the immediately preceding text. Take (7)–(9) for example.

- (7) ... (a) 虎妞這才想起去請大夫。 (b) Ø 扎了兩針，  
 ... (a) *Huniu zhe-cai xiangqi qu qing daifu.* (b) *Ø zha le liang-zhen,*  
 ... (a) Huniu only-then think go for doctor. (b) Ø get PRT two-shot,

- (c) Ø 服了劑藥， (d) 他清醒過來，  
 (c) *Ø fu le ji yao,* (d) *ta qingxing guolai,*  
 (c) Ø take PRT CL medicine, (d) **he** wake up,

- (e) Ø 一睜眼便問，“還下雨嗎？”  
 (e) *Ø yizheng yan bian wen, “ai xiayu ma?”* (p. 157)  
 (e) Ø once open eyes then ask, till rain Q?

‘...Then Hu Niu thought of going to a doctor. After he had an injection of camphor and a dose of medicine he opened his eyes again.

He woke up and asked “Is it still raining?”’

(Lao She, 1979; translated by James)

- (8) (Previous paragraph of four clauses describing the contents of a report without mentioning Fourth Master Liu.)

- (a) Ø 聽到這個報告， (b) 劉四爺更火啦。  
 (a) *Ø tingdao zhe-ge baogao,* (b) *Liu Siye geng huo la.* (p. 115)

- (a) Ø hear this-CL report, (b) **Liu Siye** even-more angry PRT.

‘(a) Hearing this report, (b) Fourth Master Liu’s fire blazed even higher.’

(Lao She, 1945; translated by King)

- (9) (Previous four paragraphs of 29 clauses concern a conversation unrelated to Happy Boy.)

- (a) Ø 聽到這兒， (b) 祥子把車拉了起來，  
 (a) *Ø Ting dao zher,* (b) *Xiangzi ba che la le qilai,*  
 (a) Ø listen till here, (b) **Xiangzi** BA cart pick PRT up,

- (c) Ø 搭訕著說了句：“往南放放，這兒沒買賣。”  
 (c) *Ø dashan zhe shuo le ju: ang nan fangfang, zher mei maimai.* (p. 132)  
 (c) Ø mutter PRT say PRT word: “toward south go, here no fare.”

‘When he had heard this much, Happy Boy picked up the shafts of his rickshaw

and said in an offhand way over his shoulder: “I’m going to the southward a ways to wait for a fare—there’s no business here.”’

(Lao She, 1945; translated by King)

As we can see from (7), the zero NPs in (b) and (c) do not have a coreferential NP in the previous sentence in (a); in (8) and (9), the cataphoric zeros do not have antecedents in the previous one and four paragraphs, respectively. Sometimes, a



chapter in a written narrative may start with a clause with a zero NP. Of the 24 chapters in *Luotuo Xiangzi*, 3 chapters begin with such clauses. As an extreme case, a short story also written by Lao She, “One Day,” (Lao She, 1933) starts with a chain of 18 such clauses without giving any clue of what the zero NPs might refer to. The interpretation of the zero NPs in these clauses has to be cataphoric.

In summary, the examples given in this section provide evidence for the claim that zero NPs occurring in the so-called “first link,” such as the ones in (5)–(9), have to be interpreted as being coreferential cataphorically with the overt topic NP in the following clauses. The coreference between the zero and the overt topic NP makes the first link part of the topic chain. Consequently, the zero NPs are considered to be in the chain-initial position.

### Zero Anaphora in Sentence-Initial Position

Cataphora, however, is not the only way to interpret sentence-initial zero NP. Consider (10):

- (10) ... (a) 他下了決心, (b) Ø 不跟她吵, (c) Ø 不跟她鬧,  
 ... (a) *ta xia le juexin*, (b) *Ø bu gen ta chao*, (c) *Ø bu gen ta nao*,  
 ... (a) *ta* made PRT decision, (b) Ø not with her quarrel, (c) Ø not with her fight,  
 (d) Ø 倒頭就睡, (e) Ø 明天照舊出來拉車,  
 (d) *Ø daotou jiu shui*, (e) *Ø mingtian zhaojiu chulai lache*,  
 (d) Ø lie-down then sleep, (e) Ø tomorrow same come-out pull-cart,  
 (f) 她愛怎樣怎樣! (g) Ø 一進屋門, (h) 虎妞在外間屋里坐著呢,  
 (f) *ta ai-zenyang-zenyang!* (g) *Ø yi jin wumen*, (h) *Huniu zai waijianwu-li zuo zhe ne*,  
 (f) she do-what-she-want! (g) Ø once enter door, (h) *Huniu* be outside-room-in sit PRT PRT,  
 (i) Ø 看了他一眼, (j) Ø 臉沉的要滴下水來。  
 (i) *Ø kan le ta yi-yan*, (j) *lian chen de yao di xia shulai*. (p. 133)  
 (i) Ø look PRT he once, (j) Ø face pull PRT will drop down water.

‘... He had made up his mind: he would not quarrel with her, would not be angry with her, but would just lay his head down and go off to sleep. Tomorrow he would go out as he had today to pull his rickshaw. She could do what she liked.

As soon as he got in the door, he saw Tiger Girl sitting in the outer room.

She looked at him, her face so deep in storm it seemed as if torrents would pour out of it in that instant.’

(Lao She, 1945; translated by King)

In (10), the zero NP under discussion is the one in (g). This zero NP is not coreferential with the overtly mentioned topic of the following clause in (h) (i.e., *Huniu* ‘Tiger Girl’). Rather, it is coreferential with the topic in the previous paragraph, that is, *ta* ‘he’ in (a). Because (g) is linked to (a) by a zero anaphor, according to the definition of the topic chain discussed earlier, it should be considered as part of the chain starting in (a). However, the rest of the sentence in (h)–(j) apparently does not belong to the chain of (a)–(g). A new chain starts in (h) with the

topic being *Huniu* ‘Tiger Girl’ and a coreferential anaphoric zero in both (i) and (j). In terms of sentence structure, however, (g)–(j) form one sentence. (11) is another case of the same phenomenon:

- (11) (a) 祥子稍微痛快了些。 (b) Ø 待了會兒， (c) 老程回來了，  
 (a) *Xiangzi shaowei tongkuai le xie.* (b) Ø *dai le yihuir,* (c) *Lao Cheng huilai le,*  
 (a) *Xiangzi* a-little joyful PRT bit. (b) Ø stay PRT a-while, (c) *Lao Cheng* return PRT,  
 (d) Ø 端著兩大碗甜漿粥，和不知多少馬蹄燒餅與小焦油炸鬼。  
 (d) Ø *duan zhe liang da wan tianjiangzhou, he buzhi duoshao matishaoxing yu*  
*xiaojiao-youzhagui.* (p. 103)  
 (d) Ø hold PRT two big bowl sweet-congee, and not-know how-many horse-hoof-cake and  
 crisp-fried-biscuit.  
 ‘Happy Boy felt a little lighter at heart. He had not waited long when Old Ch’eng came back  
 toting two big bowls of sweet broth of congee, along with he did not know how many horse-hoof  
 cakes and crisp “little devil” biscuits fried in oil.’ (Lao She, 1945; translated by King)

In (11), the zero NP in (b) is coreferential with the topic in (a), that is, *Xiangzi*. Thus, (a)–(b) form a topic chain. In (c), a new chain starts with *Lao Cheng* as the topic and a coreferential zero in (d). In terms of sentence structure, however, (b)–(c)–(d) form a sentence. The structure of (11) is shown in (12):

- (12) Structure of (11):
- |                              |                                 |
|------------------------------|---------------------------------|
| <b>in terms of sentence:</b> | <b>in terms of topic chain:</b> |
| Sentence 1: (a)              | Chain 1: (a)–(b)                |
| Sentence 2: (b)–(c)–(d)      | Chain 2: (c)–(d)                |

This is an interesting phenomenon because here there are two topic chains whose boundaries not only do not correspond to sentence boundaries but also do not correspond to paragraph boundaries. In terms of topic chains, the boundary is between (b) and (c), whereas in terms of sentences and paragraphs, the boundary is between (a) and (b). The clause in (b) is in the sentence-initial position, but the zero NP is an anaphor coreferential with the topic in the previous sentence in (a). Therefore, the zero in (b) is sentence-initial, but not chain-initial.

### Distributional Characteristics in Text

So far it has been shown that chain/sentence-initial zero NPs can be interpreted in two different ways, either cataphorically, referring to an overt topic NP in the following clause, or anaphorically, referring to an overt topic NP in the previous chain or sentence. Paragraph breaks do not seem to affect such interpretation.

Because anaphora and cataphora differ in the direction of reference, one wonders how often they are used, whether they play different functions in text forma-

tion, and whether they have distributional characteristics in terms of what parts of text (e.g., paragraphs) they occur in. To answer these questions, sentence/chain-initial zero NPs in six chapters in *Luotuo Xiangzi* (chapters 14–19) were examined to determine their function and the type of reference they made. For the examination, only those sentences or chains were included that contain at least two clauses, with a zero NP in the sentence/chain-initial position of the first clause and an overtly mentioned topic in the other. The results are displayed in Table 1.

In Table 1, sentence/chain-initial zero NPs are categorized according to whether they occur in paragraph-initial or paragraph-medial positions. Paragraph-initial cataphoric zero NPs are coreferential with overt NPs in the following clauses only. They are illustrated by earlier examples in (8a) and (9a). Paragraph-initial anaphoric zero NPs are coreferential with overt NPs in the preceding paragraph. They are illustrated by (10g) and (11b). Paragraph-medial zero NPs, although in sentence-initial position, occur in the middle of paragraphs. In the previous examples, the zero NPs in (5a), (6b)–(6c), (7b)–(7c), and (7g) are cataphoric; the one in (13c) is anaphoric.

From Table 1, we can see that sentence/chain-initial zero NPs occur quite frequently. In the six chapters (about 50 pages of text), 81 cases were observed. The majority of them are interpreted as cataphors (92.6%) and form topic chains with the subsequent text. Only 6 cases (7.4%) are anaphors and form topic chains with the preceding text. Considering the fact that zero anaphors in the sentence-initial position is a coreferential relation that crosses sentence boundaries and that there is a topic change in the middle of a sentence, the small number of their occurrences is understandable.

From Table 1, we can also see that sentence/chain-initial zero NPs are used in both paragraph-initial and paragraph-medial positions and that the ones in paragraph-medial positions are twice as frequent as those in paragraph-initial positions. However, considering the higher number of potential positions within paragraphs in which the zero may occur, the difference between the two groups probably does not have any practical significance. Therefore, sentence/chain-initial

Table 1  
Distribution of Sentence/Chain-Initial Zero Noun Phrases and the Types  
of Reference *Luotuo Xiangzi* (Chapters 14–19)

Location	Anaphoric		Cataphoric		Total	
	No.	%	No.	%	No.	%
Paragraph-initial	2		25		27	33
Paragraph-medial	4		50		54	67
Total	6	7.4	75	92.6	81	100

tial zero NPs do not seem to have a strong tendency to occur either at the beginning of a paragraph or in the middle of a paragraph.

In this study, a major difference observed between anaphoric and cataphoric zero NPs was their referential distance. The distance of anaphoric reference can be very long, much longer than that of cataphoric reference. As (13) shows, anaphoric reference can cross not only sentence boundaries, extending from *ta* 'he' in (a) to (c), but also paragraph boundaries, extending further to (g) and (h):

- (13) ... (a) 他咬上了牙, (b) Ø 蹚著水不管高低深淺的跑起來。  
 ... (a) *Ta yaoshang le ya,* (b) *Ø tang zhe shui buguan gaodishenqian de pao-qilai.*  
 ... (a) *he clench PRT teeth,* (b) *Ø wade PRT water not-care high-low-deep-shallow PRT start-run.*
- (c) Ø 剛跑出去不遠, (d) 天黑了一陣, (e) 緊跟著一亮,  
 (c) *gang pao chuqu bu yuan,* (d) *tian hei le yizhen,* (e) *jingenzhe yiliang,*  
 (c) *just run out not far,* (d) *sky dark PRT a-while,* (e) *immediately bright,*
- (f) 雨又迷住他的眼。 (g) Ø 拉到了,  
 (f) *yu you mizhu tade yan.* (g) *la dao le,*  
 (f) *rain again blur his eye.* (g) *pull arrive PRT,*
- (h) 坐車的連一個銅板也沒多給 Ø。 ...  
 (h) *zuochede lian yi-ge tongban ye mei duo gei Ø (p. 154)*  
 (h) *passenger even one-CL penny PRT not extra give Ø.*

'He ground his teeth and, paying no attention to whether the water was deep or shallow, began to run. He hadn't been running long when another flash came close behind another darkening of the sky and rain blurred his vision again.

When they finally arrived, his passenger didn't give him a penny extra. ...'

(Lao She, 1979; translated by James)

In addition, an anaphoric chain may also be temporarily interrupted and then resume, again with a zero NP, in the subsequent text. The result is "a broken chain" shown in (14). In this example, the text that belongs to the topic chain is highlighted.

- (14) ... (a) Ø 不敢再思索, (b) 他拔起腳就往回走, 非常的快。  
 ... (a) *Ø bu gan zai sisuo,* (b) *ta baqijiao jiu wang-hui-zou, feichang de kuai.*  
 ... (a) *Ø not dare again think,* (b) *he pull-up-feet then return, very PRT fast.*
- (c) 門外有些腳印, (d) 路上有兩條新印的汽車道兒。  
 (c) *Menwai you xie jiaoyin,* (d) *lu-shang you liang-tiao xinyinde qichedaor*  
 (c) *door-out exist some footprint,* (d) *road-on exist two-CL new track.*
- (e) 難道曹太太已經走了嗎? (f) 那個姓孫的為什麼不拿他們呢?  
 (e) *Nandao Cao Taitai yijing zou le ma?* (f) *Nage xingsunde weishenme bu na tamen ne?*  
 (e) *Is-it-true Mrs. Cao already leave PRT Q?* (f) *That Sun why not arrest they PRT?*
- (g) Ø 不敢過去推門, (h) Ø 恐怕又被人捉住。 (i) Ø 左右看,  
 (g) *Ø bu gan guoqu tui men,* (h) *Ø kongpa you bei-ren zhuzhu* (i) *Ø zuoyou kan,*  
 (g) *Ø not dare go-over push door,* (h) *Ø afraid also by-person catch.* (i) *Ø around look,*

- (j) 沒人, (k) 他的心跳起來, (l) 試試看吧, (m) 反正也無家可歸,  
 (j) *meiren*, (k) *tade xin tiaao-qilai*, (l) *shishikan ba*, (m) *fanzheng ye wujiakegui*,  
 (j) nobody, (k) his heart start-thump, (l) try PRT, (m) anyway PRT no-home-to-go
- (n) 被人逮住就逮住吧。 (o) Ø 輕輕推了推門, (p) 門開著呢。  
 (n) *bei-ren daizhu jiu daizhu ba*. (o) Ø *qingqing tui-le-tui men*. (p) *men kai zhe ne*.  
 (n) by-people arrest then arrest PRT. (o) Ø lightly push door, (p) door open PRT PRT.
- (q) Ø 順著牆根走了兩步,  
 (q) Ø *shun zhe qianggen zou le liang bu*,  
 (q) Ø along PRT wall-foot walk PRT two step,
- (r) Ø 看見自己屋中的燈亮兒, 自己的屋子!  
 (r) Ø *kanjian ziji wu-chong de dengliangr, ziji de wuzi*. (p. 94)  
 (r) Ø see self room-in MOD light, self MOD room!

'...He dared not speculate any longer. He lifted his feet and walked back very quickly. There were footprints in front of the doorway and new tire tracks on the street. Could Mrs. Ts'ao possibly have left already? Why hadn't that fellow Sun arrested her? He didn't dare push at the door; he was afraid someone would grab him again. He looked around and saw no one. His heart began to thump. Try taking a look. There's no other house to go to. Anyway, if someone arrests me, then I'm arrested. He pushed gently at the front door and it opened. He took two steps in, staying close to the wall, and saw the light on in his room. In his own room!' (Lao She, 1979; translated by James)

The topic for (14), that is, *ta* 'he' appears in (b). The topic chain is formed by the subsequent text in (g)–(i), (o), (q), and (r), each containing a zero anaphor. This topic chain is interrupted by the text in (c)–(f), (j)–(n), and (p), but the chain can still resume with zero NPs after the interrupting text. The result is a long topic chain with distant anaphoric reference.

In comparison, the distance of cataphoric reference is always short. There are two contributing factors. One is that clauses that serve as cataphoric links are generally simple in structure and short in length. The other is that the number of cataphoric links that can be used before the coreferential overt NP is small, usually no more than two or three. These characteristics of cataphoric links have to do with their function in discourse, which is discussed in the next section.

#### Function of Clauses With Sentence/Chain-Initial Zero NPs

Because clauses with sentence/chain-initial zero NPs are a variant form of the default topic chain structure, as discussed earlier, their use must be motivated. Initially, reading these clauses gives one the impression that they carry a tone similar to that of supporting text. These clauses, being in the sentence/chain-initial position, continue or recapitulate the description in the previous sentences and set up a base for narration in following clauses. In this sense, they seem to play the role of background text. By contrast, the clauses with overt topics and the subsequent ana-

phoric links are more likely to designate foreground actions or events. Based on this observation, it was hypothesized that clauses with sentence/chain-initial zero NPs have the function of backgrounding in Chinese. One goal of this study was to test this hypothesis using the factual data.

In discourse analysis and pragmatics, the verification of foreground and background text often makes use of syntactic features. For example, in English, subordinate clauses are found to code backgrounding. Participial clauses also code backgrounding by reducing subject and tense-aspect-modality marking. Conversely, foreground text is given prominence by the coding of main clauses with full-fledged syntactic and morphological features (Givon, 1993; Thompson, 1983; Tomlin, 1985). In Chinese, however, because of the limited surface marking for morphological and syntactic structures, the verification of foreground and background text is not as easy as it is in English.

In this study, efforts were made to examine the structural characteristics of the clauses with sentence/chain-initial zero NPs, although they are limited, to determine their grounding status. For this purpose, I used some grounding features already recognized for Chinese in the field. Then, to verify my initial observation, I made use of the English translation of the Chinese text as a parallel corpus to see whether the grounding status of the clauses in the different versions mutually agree with each other. The data used for this study cover the same six chapters of *Luotuo Xiangzi* described before and two versions of the English translation of these chapters.

Grounding Features

As described earlier, 81 sentence/chain-initial clauses with zero NPs were identified in the data. In this section, the structures of the 81 clauses are examined for their grounding characteristics. First, the structures of the 81 clauses are categorized in Table 2. A discussion of the grounding features of these structures follows.

The first category in Table 2 is “adverbial clauses” with 11 cases found in the data. In discourse analysis, subordination is among the first syntactic structures investigated for their grounding function. The general tendency observed is that in-

Table 2  
Structures of Clauses With Sentence/Chain-Initial Zero Noun Phrases  
in *Luotuo Xiangzi* (Chapters 14–19)

Categories	Examples	No. of Cases Found
Adverbial clauses	(10g)	11
–zhe	(6b)	15
Unmarked verbs	(5a), (6g), (8a), (9a), (13g)	33
–le	(7b), (7c), (11b)	20
Others	(14a)	2
Total		81

dependent clauses are for major events in a narrative and subordinate clauses are for background descriptions. In Chinese, although subordination is very often not overtly marked, some conjunctions are still used to mark subordination (Chu, 1998; Li & Thompson, 1981). The 11 cases found here in the data include the use of conjunctions such as *yi* 'as soon as', *yihou* 'after', *jiaruo* 'if', *suiran* 'although', and so on. These clauses are considered to form background text by subordination.

For the rest of the 81 clauses, I examined their verbal structures, that is, verbal affixes used to mark aspect of verbs, as an indication of the grounding status of the clauses (e.g., Chu, 1998). Syntactic marking of aspect has generally been found to have an important function on the discourse level (Givon, 1984; Hopper, 1979, 1982). In Chinese, perfective aspect (indicated by the verb affixes *-le* and *-guo*) has been claimed to mark foregrounding, whereas imperfective verbs (indicated by the durative *-zhe* and unmarked verbs) are found to code background. The perfective *-le*, however, has another function. When it marks anteriority (semantically) and occurs in front of a foregrounded clause (structurally), it marks background (Chu, 1998, p. 235). In this study, these claims are used to determine the grounding status of the clauses with sentence/chain-initial zero NPs.

In the data, 15 clauses were found in which the verbs are marked with *-zhe* and 34 in which the verbs are unmarked. Because these verbs are imperfective, the clauses are considered backgrounded. Also in the data, 20 clauses were found with the verbs marked by *-le*, but no case of *-guo* was found. All the uses of *-le* indicate anteriority and, by nature, the clauses are followed by full clauses in foreground. Therefore, according to the criteria described previously, all these clauses are backgrounded. The last category includes only two cases in which the verbs are in the negative form, that is, *irealis*. These clauses coding unrealized events—actions are also backgrounded.

Therefore, the result of my examination shows that all the clauses with sentence/chain-initial zero NPs have the features of backgrounding. Next, I move on to my second test to verify the grounding status of the clauses just observed.

### Verification of Grounding Status

The backgrounding status of the clauses with sentence/chain-initial zero NPs observed can be supported by the fact that these clauses are at the beginning of discourse units, that is, a typical location for background text. An initial examination of the examples given earlier alongside their English translation also shows that these clauses are usually translated into English using either participial or adverbial clauses, both well recognized as marking backgrounding (Givon, 1993; Thompson, 1983; Tomlin, 1985). It was therefore rationalized that when the same story is told in different languages, the event structure and grounding structure of the narrative should basically remain constant. If this is a valid assumption, and if statistical data can be used to show that sentence/chain-initial clauses with zero

NPs are predominantly translated into English using subordinate clauses (including participial clauses), that can serve as further evidence for my claim that the clauses play the function of backgrounding.

Based on this rationale, a test was carried out to verify the grounding status of sentence/chain-initial clauses with zero NPs by using the English translation of these clauses. To provide a stronger support, two versions of the English translation of *Luotuo Xiangzi* were used: one by King (Lao She, 1945), the other by James (Lao She, 1979). Table 3 presents a categorization of the forms and structures used in the translation of the 81 clauses in the same database described earlier.

As can be seen in Table 3, a number of structures are used in the English translation. To illustrate, the use of V-ing (participial clauses) can be found in earlier examples in (6b) and (8a); the use of full subordinate clauses can be found in (5a), (6g), (7b), and (9a). The category of phrase includes cases in which an NP, prepositional phrase, or adjective phrase was used in the translation. (15a) is an example using an AdjP; (15b) uses a full clause (also cf. (14a)).

- (15) Ø 拉慣了車，他不會對付買賣；...  
Ø *la-guan le che, ta bu hui dui fu maimai*; ... (p. 141)  
Ø **pull-accustomed PRT rickshaw**, he not know-how manage business
- (15a) ‘**Accustomed to pulling a rickshaw**, he could not meet the demands of business;’  
(Lao She, 1945; translated by King)
- (15b) ‘He was accustomed to pulling a rickshaw and couldn’t cope with the technique of selling things.’  
(Lao She, 1979; translated by James)

Included in the category of others are cases in which the translation is more “free” and no corresponding units can be identified for the sentence/chain-initial clauses specifically.

Among the categories in Table 3, the first three, that is, V-ing, full subclauses, and phrases, are usually found to code background propositions, whereas the category of full clauses is more often used to code foreground propositions. The category of others is irrelevant to this test and was excluded from the analysis. If the numbers for the first three categories are added up, it can be seen that the total is much higher than the number of full clauses. The result of analysis of variance

Table 3  
English Translation of Clauses With Sentence/Chain-Initial Zero Noun  
Phrases in *Luotuo Xiangzi* (Chapters 14–19)

Translation	V-ing	Full subclause	Phrase	Full clause	Others	Total
King	21	37	3	12	8	81
James	13	36	4	25	3	81



shows that the difference is statistically significant: King,  $F(1, 72) = 59.041, p < 0001$ ; James,  $F(1, 77) = 11.39, p = .0012$ ; King and James combined,  $F(1, 150) = 52.712, p < .0001$ . This shows that both translators had a strong tendency to interpret and translate the clauses with sentence/chain-initial zero NPs as background text. Therefore, the observation that the clauses with sentence/chain-initial zero NPs code background text is verified.

## FURTHER DISCUSSION QUESTIONS

As has been explained earlier, the topic chain has been defined in this literature as a chain of clauses sharing the same topic, which occurs overtly in the chain-initial clause. The subsequent clauses are linked to the chain by the form of zero anaphora. In this article, it has been shown that the topic in a topic chain does not always occur overtly in the first link. Sometimes, a zero NP may occur in the chain-initial clause, coreferential with an overt topic NP in the following clause. This means that topic chains involve not only anaphoric reference but also cataphoric reference. Because of the frequent occurrence of such a pattern, as shown in this study, this feature should be taken into account when defining topic chains. Thus, a revised definition of the *topic chain* is proposed in (16):

- (16) Proposed definition of the *topic chain*:

A *topic chain* is a chain of clauses sharing an identical topic that occurs overtly once in one of the clauses. All the other clauses are linked to the chain by zero NPs coreferential anaphorically or cataphorically with the topic.

So far in the analysis, a topic chain has always been considered as a unit, either on the syntactic level or on the discourse level. In this study, however, it has been shown that this unit does not always correspond to the traditional notion of a sentence. A clause can be part of a topic chain, but, at the same time, serves as a component of a different sentence. In addition, the domain or scope of a topic chain can cross not only sentence boundaries but also paragraph boundaries. This seems to suggest that a topic chain can be a unit larger than a sentence or even a paragraph. What, then, is the exact nature of topic chains? What kind of units are they, and what functions do they serve on the syntactic and discourse levels? If the topic chain is a separate category in the grammar with its own syntactic properties (Shi, 1989), what is its relationship with other units such as sentences and paragraphs? The answer to these questions definitely calls for further investigation into both the structure and the functions of topic chains.

The fact that sentence/chain-initial zero NPs can be anaphors or cataphors definitely has a bearing on language processing. It implies that, in language processing, a number of possibilities are available for the interpretation of such zero NPs.

The comprehender has to search for an appropriate NP to set up the coreferential relation based on the information available through context. One thing that aids this process is the fact that the NP referents with the minimal encoding (i.e., zero) are always major discourse entities. They are referred to frequently, at (or near) the center of attention, and, as a result, figure prominently in the discourse. In cognitive and psycholinguistic research, the close relation between the importance of discourse entities and the choice of referring expressions has been explained in terms of focal attention and episode structure (Gernsbacher, 1989; Grosz, Joshi, & Weinstein, 1995; Pu, 1995; Tomlin, 1987; Tomlin & Pu, 1991), topicality of the referent (Chu, 1998; Gernsbacher, 1989; Givon, 1983), and information load of the referring expressions (Almor, 1999). It has been suggested that a list of candidates is maintained in short-term memory for this purpose (Just & Carpenter, 1980; Kieras, 1981). One observation made in this study is that the topics of anaphoric links may have a more local nature—for example, (13d)–(13e)—whereas the topics of cataphoric links seem to be more global in the sense that they are always the protagonists or main characters in the narrative. Their prominent status warrants them not only as the top candidates for the interpretation of the cataphoric zeros but also as a coherent factor in general.

Another factor that facilitates the interpretation of sentence/chain-initial zero NPs is the situational (nontextual) information, that is, the exophoric information in the sense of Halliday and Hasan (1976, p. 33). Typically, narrative text builds up vivid pictures in the mind of the hearer–reader, with participants and their roles, events and actions, settings, and so on. Once a mental picture has been developed with all these elements in place, the narrator or novelist can then refer to the entities in the picture, especially the main participants, with less explicit referring expressions (such as pronouns and even zeros), knowing that they are unmistakably identifiable and easily retrievable from the reader's mental picture. For example, the situation for (9) (with a chain-initial cataphoric zero) is that Mr. Feng, an accountant hired by Fourth Master Liu, reported to Liu all the presents received at his birthday banquet. Immediately after the report, a new paragraph starts with the clause in (8a), that is, *tingdao zhege baogao* 'hearing this report'. Because Fourth Master Liu was the only one listening to the report, the referent of the zero NP at the beginning of the clause can immediately be interpreted without waiting for the topic NP to be mentioned overtly in the next clause.

In the same vein, for the sentence-initial anaphoric zero in (10), the situation understood from the preceding text is that *Xiangzi* goes out to work every day while his wife *Huniu* stays home. On this particular day, *Xiangzi* was on his way home after work, thinking about his relationship with *Huniu* and what he wanted to do with her when he got home. The next paragraph starts with *yi jin wumen* 'as soon as getting into the door' in (g). Because there are only two active participants in the narrative at that point, and *Xiangzi* is the only one returning home, there is no other possible interpretation for the zero in (g) except *Xiangzi*, regardless of what comes

in the next clause. Thus, exophoric information plays an important role in assisting the interpretation of sentence/chain-initial zero NPs.

In this study, we have seen that topic chains in Chinese can be very long, consisting of an unlimited number of clauses,<sup>5</sup> each forming a new stage in providing information about a common topic. Because of the strong uniting power of topic and topic chains, a topic chain can be temporarily interrupted by other text only to resume, without overtly mentioning the resumed topic. The result is a distant anaphoric reference and a so-called “broken chain.” It seems that narration in Chinese can get on and off a topic chain with relative ease.

The large capacity of topic chains and their all-encompassing nature makes it possible for speakers of Chinese to keep adding new content to a topic chain in the form of anaphoric links. This can be done after the speaker mentions the topic, as he or she is speaking, without advanced planning. In this sense, Chinese sentences or topic chains are said to resemble *liushuiju* “flowing water” (Hu & Jin, 1989; Shen, 1988), just as the speakers’ (or writers’) stream of thinking is flowing out onto the paper. Yet, in this study, we have presented evidence to show that topic chains do not simply flow along without internal organization. Within the chains, some clauses serve the function of backgrounding, whereas others serve the function of foregrounding. In cases of broken chains, the parts that form the chain seem to constitute foreground text, whereas the parts off the chain are backgrounded.

Because there is no upper limit on the number of clauses that can be incorporated into a topic chain, one wonders how the clauses are put together and by what form. It has been claimed that the clauses are juxtaposed without subordination (Shi, 1989, 1992). However, the claim is probably made based on the observations of anaphoric links only. In this study, it can be seen that cataphoric links have a different function than anaphoric links. They form background text. Because, in English at least, background propositions are found to be coded typically by subordinate clauses, can we hypothesize that cataphoric links in topic chains in Chinese are subordinating to the subsequent “main” clauses? Again, because of the poor morphological marking of Chinese, this question belongs to the thorny issue of subordination, which awaits further exploration.

The goal of this article was to uncover some features of topic chains. As many studies of this kind do, it has raised more questions than it can answer. Given the scope of this article and current knowledge of the Chinese language, we hope that the findings of this study can serve as the basis for further investigation of topic chains, which will uncover more facts and alternative explanations.

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<sup>5</sup>This, of course, is only so in theory. In reality, the number of comments is also subject to psychological constraints such as memory limitation.

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