Rule Conspiracy in Chinese Time Expressions

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The paper attempts to explain Chinese time expressions such as guòqù shíwǔ nián lái (过去十五年来, over the past fifteen years), in which moving-time (guòqù shíwǔ nián, 过去十五年, the past fifteen years) and moving-ego (guòqù shíwǔ nián lái, 十五年来, over the past fifteen years) as two metaphor types oddly coexist in a single phrase. A notion of rule conspiracy is used to explain this oddity. I make a distinction between a Kiparsky-type conspiracy, or Kconspiracy, and an extended Kiparsky-type conspiracy, or EK conspiracy. Given two rules, Rule A and Rule B, if A first applies to D and turns it to D-a, and then B applies to D-a, and turns it to D-b, then Rule A and Rule B are in K-conspiracy. We cannot see the D-a step, but only the D-b step. However, in an EK conspiracy, two outputs from two inputs can coexist in a single domain. Let Rule A and Rule B be two rules in interaction. Let $D = D_1 + D_2$ be the domain of their interaction. If A applies to D_1 and turns it into D_1 -a, and B applies to D_2 and turns it into D_2 -b, then Rule A and Rule B are in EK conspiracy. In an EK conspiracy, two outputs of the two rules oddly coexist in one domain. Three threads, moving entity, moving orientation and reference point, scheme the EK conspiracy. The EK conspiracy functions at various levels, within one phrase, among phrases within one sentence, and even in different sentences.

1. Introduction

If time is the mind of space, then space is the body of time. (Alexander, 1920) To construct abstract ideas by tangible concepts, metaphors are there to map the terms from the domain of time onto the domain of space. Time is conceptualized in terms of space. Time can be long or short. There are times lying in front of us, as in *a bright future ahead*; or behind us, as in *leave all the days behind*. In Chinese, there are even times above us, as in *shàng gè xīngqī* (上个星期, last week); or below us, as in *xià gè yuè* (下个月, next month).

2. Time as space metaphor

2.1 Time as space metaphor in English

The metaphor of *time as space* has a long history of discussion. Moving-Time and Moving-ego are the two branches of this metaphor. (Clark, 1973; Gentner, 2001; Evans, 2004; Lakoff & Johnson, 1980; Lakoff, 1993; Traugott, 1978) Lakoff (1993) has

constructed his model of time by space metaphor in English with one general metaphor subsuming two special cases. The general metaphor is that time passing is taken as motion. Time is understood in terms of things or entities with locations and motions. The present time is at the same location as a canonical observer. The passing of time is motion. Future times are in front of the observer; past times are behind the observer. Of the time and observer, one thing is in motion, whereas the other is stationary. The stationary entity is the deictic center. Since motion is continuous and one-dimensional, the passage of time is continuous and one-dimensional.

In accordance with the choice of deictic center as the time or as the observer, two special cases are derived under the general metaphor, as is shown in Figure 1 and Figure 2 (Yu, 1998). In Special Case One, time passing is motion of an object while the observer is fixed. Time is moving to the fixed observer with its front in its direction of motion. The observer faces the moving time until the time passes the observer and gets to the back of the observer. In Special Case Two, time passing is motion over a landscape. Time has fixed extension that can be measured. Observer is moving with respect to time. The starting point of the observer can be either away from the time passage or within the extension of the time passage. But the direction of moving is always toward the future. These two special cases under the general metaphor are proved to have covered a wide range of data in English. When it comes to Chinese, Yu (1998) has argued with ample illustration and comparison that these two special cases are also good to view Chinese time expressions.

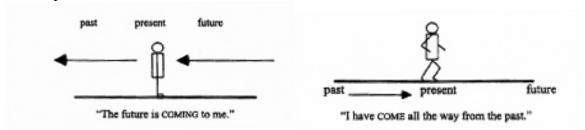


Figure 1: Case 1--Time as a moving object

Figure 2: Case 2--Time as stationary landscape

2.2 Time as space in Chinese

Among the great amount of Chinese time expressions, two categories are frequently used and will be focused for discussion in this paper. One category of expressions can be called Category COME-and-GO, involving time expressions with the key word verb $l\acute{a}i$ (\Re , come), or $q\grave{u}/w\check{a}ng$ (\Re / \mathring{e} , go, leave); the other can be called Category FRONT-and-BACK, involving those time expressions with the key word locative-adverb qián (\Re), front) or $h\grave{o}u$ (\Re , back). (Shi, 2004) These four key words can compose with morpheme or words to form time expressions.

As for $l\acute{a}i$ (来, come), $q\grave{u}/w\check{a}ng$ (去/往, go, leave), qián (前, front), and $h\grave{o}u$ (后, back), time expressions with them can refer to either future or the past. However, the metaphors behind them are not necessarily the same. $L\acute{a}i$ (来, come) can compose with

morphemes or words to refer to the future, as in $w\`eil\acute{a}i$ (未来, future), $l\acute{a}ir\grave{i}$ (来日, the coming days). In the time expressions with $l\acute{a}i$ (来, come) referring to the future time, Special Case One, moving time and stationary observer, is the intended metaphor. $L\acute{a}i$ (来, come) can also compose with morphemes or words to refer to the past time, as in $sh\acute{i}w \check{u}$ $ni\acute{a}nl\acute{a}i$ (十五年来, over the past fifteen years). But it is the Special Case Two, involving moving observer and stationary time, that is the utilized metaphor using $l\acute{a}i$ (来, come) to refer to the past. Asymmetrically, words or phrases composed with $q\grave{u}/w\check{a}ng$ (去/往, go, leave) can only refer to past but not future. Time expressions like $gu\grave{o}q\grave{u}$ (过去, the past), $q\grave{u}ni\acute{a}n$ (去年, last year), and $y\check{i}w\check{a}ng$ (以往, the past), etc., all refer to the past time. The metaphor for these time expressions is Special Case One, which makes use of moving time and stationary observer. Special Case Two, which utilizes moving observer and stationary time, does not apply to the time expressions of future marked by $q\grave{u}$ (去, go).

The same asymmetry was claimed for the time expressions of Category FRONTand-BACK. According to Lv (1984), in modern Chinese, time expressions with qián (前, front) can refer to either past or future time, while hòu (后, back) can only refer to the future but not the past. Shi (2004) echoed this opinion and offered the time as space metaphor for support. However, this paper finds that hòu (后, back) can refer to the past time as well. In the time expressions with qian ($\dot{\parallel}i$, front), both the two special cases can be used. Following Special Case One, qiántiān (前天, the day before yesterday), vǐqián (以前, before), and *jiànguó qián* (建国前, before the founding of the country) are viewed as referring to the past. Also under Special Case One, 2020 nián gián (2020 年前, before 2020) refers to the future time since 2020 has not yet arrived. When we set the timetable to achieve some goal in the future, we may set it to be realized before 2020. Sān diǎn gián (三点前, before three o'clock) can be referring to the past when the speaking moment has already passed three o'clock. However, it can also refer to the future time if the speaking moment is not three o'clock yet. Time expressions with qián ($\dot{\parallel}$), front) can also be mapped from Special Case Two, but only for future time, as in qiántú (前途, future; a way ahead), qiánjǐng (前景, prospect). As Lv (1984) said, hòu (后, back) can refer to the future time, as in hòutiān (后天, the day after tomorrow), jīnhòu (今后, the days to come; from now on). However, this paper finds that hòu (后, back) can also construct time expressions referring to the past following Special Case One. Jiànguó hòu (建国后, after the founding of the country) refers to the time from 1949, when P. R. China was found, up to the speaking moment. With a point of time in the past as the reference point, the time expression constructed with hòu (后, back) can refer to the time in the past. Also in the phrase *liǎng nián hòu* (两年后, after two years), if the reference point is set somewhere in the past, say 1980, two years after which is still in the past. So whether or not $h \partial u$ (Ξ , back) can refer to the past time expressions depends on the choice of reference point.

In Table 1, some examples of time expressions with $l\acute{a}i$ (来, come), $q\grave{u}/w\check{a}ng$ (去/往, go, leave), qián (前, front) and $h\grave{o}u$ (后, back) are collected and classified by their reference to the future or past, based on two special cases of the time as space metaphor. Notice that "—" stands for a null collection.

Table 1. Category COME-and-GO and Category FRONT-and-BACK

		lái	qù/wăng	qián	hòu
Moving time	past	_	guòqù, qùnián, yĭwăng	qiántiān, yĭqián, jiànguó qián	jiànguó hòu, liăng nián hòu
	future	wèilái, láirì		2020 nián qián, sān diăn qián	hòutiān, jīnhòu
Moving ego	past	shíwŭ nián lái		_	_
	future	_	_	qiántú, qiánjĭng	_

3. Rule Conspiracy

3.1 Kiparsky-type conspiracy (K-conspiracy)

Kiparsky (1968) has originally proposed concepts of feeding and bleeding to characterize rule relations in diachronic phonological change. Hsieh (1989a, 1989b, 1992) proposed the theory of interaction as a framework for the reconciliation between formalism and functionalism. From Hsieh's theory, Her (1994) adopted and developed the groups of concepts of feeding, counter-feeding, bleeding, and counter-bleeding. According to his illustration of the taxonomy of interaction (Her, 1997), conspiracy (or counter-bleeding) is defined as follows:

Given two competing rules, R1 and R2, if the same input always yields a unique result, then R1 and R2 are in conspiracy (or in a counter-bleeding relationship).

The sound change in the Chinese word jian (\mathbb{H} , see, catch sight of) makes a good example of such conspiracy. Assume that D the domain of the interaction of the rules. Da is what we get after applying Rule A, while D-b is what we get after applying Rule B. Make [j] insertion Rule A. Insert a [j] between the initial [k] and the nuclear vowel [a], so that $[k \phi an]$ becomes [kjan], which is the phonological shape of $\mathbb H$ in Middle Chinese. Rule B is palatalization. Turn the [k] before [j] into [te], resulting in [tejan], the sound shape of $\mathbb H$ in Modern Chinese. We cannot see the D-a step, or the [kjan] step. We can only see the D-b step, or the [tejan] step.

3.2 Extended Kiparsky-type conspiracy (EK conspiracy)

Assuming that the above conspiracy is the Kiparsky-type conspiracy, we have the distinction between a Kiparsky-type conspiracy, or K-conspiracy, and an extended Kiparsky-type conspiracy, or EK conspiracy, as we are proposing in this paper.

Given Rule A and Rule B which are in interaction. Let $D = D_1 + D_2$ be the domain of their interaction. If A applies to D_1 and turns it into D_1 -a, and B applies to D_2 and turns it into D_2 -b, then A and B are in EK conspiracy.

There is a Chinese time expression pattern, $gu\grave{o}q\grave{u}$ + time period + $l\acute{a}i$. For example, guòqù shíwǔ nián lái (过去十五年来, over the past fifteen years), which refers to the past fifteen years. Such time expressions are also covered by the above-mentioned general metaphor. However, neither of the two special cases is able to fully explain it. In the part of guòqù shíwǔ nián (过去十五年, the past fifteen years), the time is moving past the stationary observer, which embodies the Special Case One; while in the part of shíwǔ niánlái (十五年来, over the past fifteen years), it is the observer who came along all the way through the past fifteen years, which is the Special Case Two. As we can see, the two special cases, moving-time and moving-ego, are oddly coexisting within this one phrase. In the same phrase, it is the different entities that are moving at their respective domains. In the example here, the past fifteen years of time is the domain where Rule A and Rule B are applied. Rule A, moving time and stationary observer, is applied in part of D, which is D_1 , and turns D_1 into D_1 -a, in the form of guòqù shíwǔ nián (过去十五年, the past fifteen years), for instance. Rule B, moving observer and stationary time, is applied in the other part of D, which is D_2 , and turns D_2 into D_1 -b, in the form of shiwŭ niánlái (十五年来, over the past fifteen years). It is really interesting that these three type of time expressions, $gu \partial q \dot{u}$ + time period, time period + $l \dot{a} i$, and $gu \partial q \dot{u}$ + time period + $l \dot{a} i$, can all be used independently in daily conversation. (Center for Chinese Linguistics Corpus, PKU) The conspiracy is thus evident that two counteracting rules are applied in two parts of a single domain, and their outputs coexist in the one phrase.

4. Rule Conspiracy in Chinese time expressions

4.1 Rule conspiracy schemes

To scrutinize the rule conspiracy in Chinese time expressions, three threads that scheme the conspiracy are: 1) moving entity; 2) moving orientation; and 3) reference point. Let us explain these three strings.

Moving entity: time vs. observer

As it is stated in the general metaphor, of the time and observer, one thing is in motion, and the other is stationary, while the stationary entity is the deictic center. Different moving entities reflect the different special cases of the time as space metaphor. Moving time and stationary observer unveils the Special Case One, whereas moving observer and stationary time shows the Special Case Two. The idea has been generally

agreed that for one time expression, either Special Case One or Special Case Two is utilized. In each expression, either the time or the observer is set in motion, while the other is kept stationary.

However, as the case of EK conspiracy above has shown, even within one time expression, not only one special case but both Special Case One and Special Case Two are in interaction. That is to say, in one time expression, both time and observer can be in motion. Two rules of cases interact in one domain following the EK conspiracy, resulted in time expressions like *guòqù shíwǔ nián lái* (过去十五年来, over the past fifteen years).

Moving orientation: past vs. future

The moving orientations are a converse for the moving time and moving ego in two special cases. As it is stated in the general metaphor of time as space, where the canonical observer is located is the present. Future times are in front of the observer and past times are behind the observer. In Special Case One, time moving is directing to the past. The front of the moving time is in its direction of motion, that is, the past. Time may backflow, but that is still taken as a wish which cannot be realized within the limit current technology. When the observer recalls the past time, the passage of time may wash back in the imagination. In Special Case Two, observer is moving with respect to the time ahead of the observer. Time is moving toward the future. The observer can turn around and look back at the past days. In such case, the observer is facing the past. In some expressions, the observer can even go back to the time that s/he has come through. Unfortunately, this, too, can only happen in mind.

With the unidirectional moving for either time or observer in each special case, however, it has seldom been indicated whether the observer is facing the future or the past. Alverson (1994) argued that in Chinese the speaker/experiencer is always stationary, facing the past with the future behind. In contrast, after analyzing rich data, Yu (1998) claimed that the observer in Chinese always faces the future and has the past behind, which is consistent with the observer in English time expressions. However, from Yu's (1998) data, we find exceptions involving words like *huígù* (回顾, look back), *huíshǒu* (回首, turn around), and *huímóu* (回眸, glance rearward), where the observer turns around from the future and faces to the past. In the phrase *huí dào guòqù* (回到过去, get back to the past), the observer is imagined to get back to the past. The observer is always facing the future but may look back as well. In the imagination, the observer can even run back to the past and this actually well match the time backflow in the imagination.

Reference point: location of the observer vs. the time passage

When talking about verb COME and GO, it is widely accepted that COME refers to motions to(ward) the deictic center, whereas GO describes motion from the deictic center. (Talmy, 1975, 2000; Oe, 1975) However, the speaker is not the only reference point. Take the sentence "Can I come visit you?" as an example, in which COME is used instead of GO when the motion VISIT is leading away from the speaker. So in this

approach, the deictic center is explained normally as the speaker, yet can be shifted to some other entity. The confusion of shifting restriction and varied situation in different languages has given the analysis questions that could not be easily answered. Fillmore (1997) thereafter proposed person-based approach. COME indicates motions towards the location at the utterance time, the location at the event time, or the "home base" of the speaker or the addressee. GO indicates motion toward a location distinct from the speaker's location at the utterance time.

Based on the above mentioned approaches, Oshima (forthcoming) proposed a set of individuals as the reference points, to be chosen in accordance with two implicational hierarchies. The person hierarchy for reference (RP) inclusion follows the ascending ranking: 1st < 2nd < 3rd. Deictic verbs follow the ascending hierarchy: RP member's location at the utterance time < an RP member's location at the event time < an RP member's "home base" (at event time).

The case is different for Category FRONT-and-BACK. Under Special Case One, moving time and stationary observer, the reference points for Category FRONT-and-BACK time expressions are located within the time passage itself, whereas the location of the observer does not matter. Front or back is now relatively within the passage of the time, but not in front of the observer or behind the observer. The front of the time passage is still the front of the time passage even when it passed the observer. There is exception only when the location of the observer happens to be the present time, as in *qiántiān* (前天, the day before yesterday), *hòutiān* (后天, the day after tomorrow), *qiánnián* (前年, the year before last year), and *hòunián* (后年, the year after next year). Conceiving the time passage as a train with several coaches, *qián* is the part which is comparatively closer to the front coach of the train, while *hòu* refers to the part which is comparatively closer to the rear coach of the train. When it comes to the expressions like *jiànguó qián* (建国前, before the founding of the country), *2020 nián hòu* (2020年后, after 2020), a particular point of time is taken as the reference point. In *jiànguó qián* (建国前, before

the founding of the country), the time when the country was founded is taken as the reference point. Jiànguó qián (建国前, before the founding of the country) refers to the time prior to this reference point, and this time period is just like all the coaches representing the years before 1949. The reference point in jiànguó qián is located in the past. In 2020 nián hòu, the year of 2020 is taken as the reference point. 2020 hòu refers to the time running after 2020, just like all the coaches running behind the coach marked 2020. The reference point here is in the future. Given that the reference points here fall within the time passage, one cannot even tell where the observer is located because it does not matter here. However, in Category FRONT-and-BACK expressions under the Special Case Two, like qiántú (前途, future, the way in front), qiánjǐng (前景, prospect), the reference point is the location of the observer who stands at the present while facing the future.

Under the rule conspiracy, for moving entity, moving orientation, or reference point, there might have been two rules applied in one domain. Take <code>guòqù</code> shíwǔ nián lái (过去十五年来, over the past fifteen years) as an example. Within this single phrase, two moving entities coexist with converse moving orientations. As it is shown in Table 2, <code>guòqù</code> shíwǔ nián (过去十五年, the past fifteen years) refers to the past fifteen years. In this part, as in the Special Case One, the time passage is moving toward and passed the stationary observer. Where the observer stands, the present is taken as the reference point. However, the latter part <code>shíwǔ</code> nián lái (十五年来, over the fifteen years) means over the past fifteen years, where it is the Special Case Two of moving-ego. The observer is moving toward the future. However, the reference point here is still where the observer is located now, or the present time.

Table 2. *Guòqù shíwǔ nián lái* (过去十五年来, over the past fifteen years)

	guòqù shíwŭ nián	shíwŭ nián lái	
Moving entity	time	observer	
Moving orientation	past	future	
Reference point	Observer (present)	Observer (present)	

4.2 Rule conspiracy on different levels

Schemed by three threads, rule conspiracy takes effect at different levels. As it is shown in the example *guòqù shíwǔ niánlái* (过去十五年来, over the past fifteen years), rule conspiracy functions within one phrase. Besides within one phrase, it works at different syntactic levels. The following tables are going to unfold a closer picture regarding this.

Within one phrase

Table 3. *Wèilái shí nián hòu* (未来十年后, after the next decade)

	wèilái shí nián	shí nián hòu
Moving entity	time	time
Moving orientation	past	past
Reference point	observer (present)	time (future)

As it is shown in Table 3, within the phrase wèilái shí nián hòu (未来十年后, after the next decade), in the part of wèilái shí nián (未来十年, the next decade), time is moving toward the past with its front facing the observer. The present location of the observer is taken as the RP. While in the part of shí nián hòu (十年后, after ten years), it is the observer moving toward the future. The observer came through the bounded ten years and is getting to a position behind the extension of the ten years. The reference point here is the period of ten years, which is within the time passage.

Table 4. *Jīnhòu huí xiǎng qǐlái* (今后回想起来, to look back in the future)

	jīnhòu	huí xiăng	qĭlái
Moving entity	time	observer	time
Moving orientation	past	still, facing the past	future
Reference point	time (present)	observer (future)	observer (future)

Here in *Jīnhòu huí xiǎng qǐlái* (今后回想起来, to look back in the future), the observer is supposed to get to some point in the future, and look back from that point of time. What the observer is standing in the future recalling the past which has actually not happened yet. So the future for now is the past for the observer in the future. The widely accepted understanding of the past and future is based on the reference point of the present. What has passed the point of present is called past, while what has not come to the point of present yet is called future. However, here the terms of future and past are relative and are not based on the reference point of present, but some point in the future. When the observer passes that point in the future, s/he can start to recall what is past for him/her at that time.

In jīnhòu (今后, from now on), time is moving toward the past with its front facing the observer. A point of the time passage, which happens to be the present, is taken as the reference point. In the metaphor of train, the coaches behind the coach where the present is located are jīnhòu (今后, from now on). In huí xiǎng (回想, recall), the observer has got to some imaginary point in the future. S/he turns around and looks back to the past; the imaginary future location of the observer is taken as the reference point. Qǐlái (起来, to mark the beginning of an action) in modern Chinese has been abstracted

as standing for the beginning of some action. However, the original meaning of *qĭlái* implies the past time passage flow back toward the observer in the future. The imaginary future location of the observer is here taken as the reference point of recalling.

Phrases within one sentence

Table 5. 1979 nián hòu, gǎigé kāifàng yǐlái, chūxiàn le jìndài lìshǐ shàng qiánsuǒwèiyǒu de xīn yímín cháo. (1979年后,改革开放以来,出现了近代历史上前所未有的新移民潮。After 1979, since Opening-up, there merged a migration such as never previously existed in modern times)

	1979 nián hòu	găigé kāifàng yĭlái	
Moving entity	time	observer	
Moving orientation	past	future	
Reference point	time (past)	observer (present)	

In 1979 nián hòu, it is the time that is moving toward the past and the observer is in station. A point in the time passage, the year of 1979 is taken as the reference point. 1979 nián hòu (1979 年后, after 1979) refers to the coaches behind the coach where 1979 is located. In gǎigé kāifàng yǐlái (改革开放以来, since the Opening-up), the observer has moved from the past point where Opening-up took place, and arrived at the present point. The present location of the observer is taken as the reference point. So in these two phrases within one sentence, there are two moving entities, two converse moving orientations, and two different reference points.

Phrases in different sentences

The EK rule conspiracy is also applied beyond phrase level but in different sentences. Here is an example from classical Chinese.

a. Wú zì jīn yǐlái zhīxíng fǎ yǐ. (吾自今以来知行法矣。I from now on know how to enforce regulations.)

——Hánfēi zi《韩非子•外储说左上》

b. Zì jīn yǐwǎng, bīng qí shǎo mǐ yǐ. (自今以往,兵其少弭矣。 From now on, warfare is going to end.)

——Chronicle of Zuo《左传•襄公二十五年》

c. Cóng jīn yǐqù, liù shí nián zhī wài, chē tóng guǐ, shū tóngwén, hèn bu jí jiàn yě. (从今以去,六十年之外,车同轨,书同文,恨不及见也。 From now on, after 60 years, the vehicles will be in a standardized size, and the writing systems will be unified. I am sorry that I will not be able to see it.)

——Three Kingdoms Narration 《三国志•吴书》

These three sentences are all dated back to before B. C. 300, which is the period of Old Chinese. In these three sentences, the reference points are all where the observer

stands, the present for the speakers. It doesn't matter whether the motion is from or toward the reference point, since the verbs used are $l\acute{a}i$ or $q\grave{u}/w\check{a}ng$. Intriguingly, they all refer to the time from now on.

Table 6. Zì jīn yǐlái, zì jīn yǐwǎng, and cóng jīn yǐqù (自今以来, 自今以往, 从今以去; from now on)

	zì jīn yĭlái	zì jīn yĭwăng	cóng jīn yĭqù
Moving entity	time	observer	observer
Moving orientation	past	future	future
Reference point	observer (present)	observer (present)	observer (present)

In zì jīn yǐlái (自今以来, from now on), the future time is coming toward the observer who is standing at the present location. In zì jīn yǐwǎng (自今以往, from now on), the observer is moving toward the future, the present location of the observer is taken as the reference point. In cóng jīn yǐ qù (从今以去, from now on), it is the same as in zì jīn yǐwǎng (自今以往, from now on) the observer moving toward the future, starting from the where s/he is standing at present.

5. Conclusion

We have tried to explain Chinese time expressions such as *guòqù shíwǔ nián lái* (过去十五年来, over the past fifteen years), in which the metaphor of moving-time (*guòqù shíwǔ nián*, 过去十五年, the past fifteen years) and the metaphor of moving-ego (*guòqù shíwǔ nián lái*, 十五年来, over the past fifteen years) interacted in a conspiracy and resulted in two oddly coexisting comparisons in a single phrase. To explain this oddity, we adopted Kiparsky's idea of conspiracy, or K-conspiracy, and we proposed an extended K-conspiracy as an EK-conspiracy. Three threads, involving moving entity, moving orientation and reference point, scheme the EK conspiracy. The EK conspiracy functions at various levels: within one phrase, among phrases within one sentence, and even in different sentences.

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