A Cognitive Semantics Analysis of the Directional Motion Verbs *wang* 往 and *lai* 来 in the *YiChing*

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Abstract. The Chinese directional motion verbs *wang* 往 and *lai* 来 can be glossed in English as 'go' and 'come', and the distinction between 'go' and 'come' in English is comparable to that between *wang* and *lai* in Chinese. Their usage in the *YiChing* is described and analyzed in this article. In the *YiChing*, *wang* and *lai* frequently co-occur in the same sentence, as well as occurring singly elsewhere. Based on a corpus analysis of the *YiChing*, combined with qualitative interpretive analysis, this article proposes that the majority of co-occurring usages of *wang* and *lai* are metaphorical. Metaphorical uses can also be found in the single usages of the two verbs. These metaphors are informed by the cultural practices and values that form the context for the *YiChing* as a cultural artifact as well as a classical text. Further, these directional motion verbs are based on metaphorical extensions that lead to their semantic changes (metaphors are based on the motion). Thus, the article further analyzes the role of metaphor and cultural context in the semantic changes to the directional motion verbs *wang* and *lai*.

Keywords: *Wang* 往 and *lai* 来; Semantic change; Deixis; Metaphor; the *YiChing*

1. Introduction

Directional motion verbs indicate the motion of a person or an object in a spatial position; this motion should have a certain direction, which may implicate the position of the observer, who is a deictic center (Sansò & Ramat, 2016; Liang, 2007, etc.). Past research also shows that "deictic" refers to a path towards or away from the speaker (e.g., Nicolle, 2009; Liu, 1980, 1998). Deixis is based on the communicative context (i.e., the perspectives involved in that), not upon the motion event's internal structure (Fillmore, e.g., 1971, 1997). The Chinese directional motion verbs *wang* 往 and *lai* 来 can be glossed as the English 'go' and 'come'; both are usually speaker-centered (e.g., *lai* and 'come' express the direction towards the center, hence motion toward the speaker, and *wang* and 'go' express the direction away from the center, hence motion away from the speaker). Not all usages of *wang* are deictic. How the non-deictic usages of *wang* differ from the deictic usages is not our main concern here.

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There have been a number of previous examples of the diachronic study of *wang* and *lai*. The basic meanings of both *wang* and *lai* are concerned with physical motion (Moore, 2014). In terms of the speaker's perceptual field and spatial deictic center, the spatial meaning of *wang* and *lai* can be interpreted as follows:

– *Wang* 往, from the point of deictic center (i.e., the speaker's position, time of utterance), means "leave one place to the other";
– *Lai* 来 generally refers to the movement from the other place to the speaker's place, as opposed to *wang* 往.

Yang (1988,1992) studied the semantic expression and grammatical function of the verb *lai* in *Wei* and *Jin* Dynasties. Zhang (1998) analyzed the evolution of the modal particle *lai*. Zeng (2021) provided four grammaticalization patterns of *lai* in Xinhua dialect. However, these studies are limited to the use of a certain part of speech, a certain kind of usage or a certain period of time; they do not comprehensively examine the words' historical evolution. A short description of the etymology of *lai* and its development is needed.

The directional motion verbs in the *YiChing* are few, but they play an important role in understanding the changes or quantification of the unity of space and time, e.g., the scope of the motion. Through the corpus, this study finds that *wang* 往 and *lai* 来 are the main directional motion verbs in the *YiChing*, which can be chosen to do a case study.

This article uses the method of hypothetical reconstruction of semantic change through the study of ancient classical texts. The focus and corpus here is the text of the *YiChing* only. This text can be considered as a key source of evidence because of the following two factors: the frequency of the directional motion verbs *wang* and *lai*; and the phenomenon of co-occurring usage. Co-occurring usage can be also found in modern Chinese, and analyzing it can help us understand the process of metaphoric extension from space to other domains, in particular time. In the *YiChing*, the two verbs frequently co-occur in the same sentence, as well as elsewhere occurring singly. Their usage in the classical text *YiChing* is described and analyzed.

With a particular focus on spatial and temporal meaning, this study argues that usages of *wang* and *lai* in the *YiChing* fall in the verb and complement categories and that a path of semantic change can be hypothesized from the data analyzed. It addresses the meaning expressed in the *YiChing* through directional motion verbs like *wang* and *lai* in light of the following main question: how can these meanings be represented in terms of metaphorical extension from a core or etymologically original meaning by semantic changes? That is, the study is a cognitive semantic description of two Chinese characters *lai* 'come' and *wang* 'go' in the *YiChing*, using the *YiChing* as the corpus to analyze the pattern and the motivation behind the semantic change of the directional motion verbs *wang* 往 and *lai* 来, in order to reveal the intrinsic relationships between space, time and motion.

This article includes three main parts, focusing on co-occurring usage of *wang* 往 and *lai* 来 in the *YiChing*, individual usage of *wang* 往 in the *YiChing* and individual usage of *lai* 来 in the *YiChing*. The corpus analyzed in this article encompasses the whole Jing text (not include Commentaries on Yi), including 41 instances of its 450 statements. This article intends to analyze the motivation for why the two directional motion verbs *wang* and *lai* are collocated and undergo semantic changes. Space, time, motion and the semantics of *wang* and *lai* will be discussed in this article.

2. Data and Methodology

The *YiChing* is one of the most important ancient Chinese texts, including *Jing* text (64 hexagrams statements, for example, *Gua* and *Yao* statements, totally including 450 statements) and *Zhuan* 传 (commentary books). We mainly use ancient *Jing* text as our corpus, that is, the main 450 statements are our data sources. According to Shaughnessy's (2014) introduction, we know that the core of the *YiChing* text is sixty-four graphs or "pictures" (called *guahua* 卦画 in Chinese), there are six lines in each *guahua*, either whole (–) or broken (--). Each of these sixty-four hexagrams is supplied with a name and seven brief texts including one *guaci* and six *yaoci*: a "hexagram statement" (*gua ci* 卦辞) understood to represent the entire hexagram, and "line statements" (*yao ci* 爻辞) for each of the six lines.

Using the related material in unearthed literature, we can find out the original appearance of the *YiChing*, which will be helpful in further study of the *YiChing* (Li, 2005). In-depth analysis and research of these directional motion words can help us understand the language characteristics of the *YiChing* text.

The method employed in this article is to combine qualitative interpretation of these examples using the Leipzig Glossing Rules with quantitative (concordance and collocation) analysis. In order to study the *YiChing* data comprehensively, this study also adopts the methodological approach of Corpus-Assisted Discourse Studies, and employs a multi-disciplinary approach, taking into account cognition, culture and philosophy.

We give below a full account of the textual sources and results of the corpus analysis to provide a cognitive semantic analysis of *wang* 往 and *lai* 来 by illuminating the spatial and temporal concepts in the *YiChing*.

The analysis we report in this study can be divided into the following aspects:

1. metaphorical and magnitude analysis of the 64 hexagrams (i.e., the changes in order and form of the six lines);
2. metaphorical analysis of some grammatical forms (e.g., the frequency of the words *wang* 往 and *lai* 来; the conception of spatial orientation or direction, temporal practice and quantity);

3. textual analysis related to weal and woe, especially in texts containing the concepts of spatial direction and temporal practice by metaphorical expressions (e.g., *wang* and *lai* can be related to weal and woe to some extent).

3. Different usages of *wang* 往 and *lai* 来 in the *YiChing*

3.1. Co-occurring usage of *wang* 往 and *lai* 来 in the *YiChing*: the "change as motion" metaphor

In the *YiChing*, *wang* and *lai* can be used in the same construction. Looking at the co-occurring usages in the following examples, most of them are metaphorical usages. They do not represent the movement of concrete objects. What is moving in these examples is some kind of abstract entity. This section will try to examine *wang* and *lai* from the point view of deictic usage (the detail will be discussed in section 4), taking into account the question of what movement actually is. This section focuses on metaphoric usage, including temporal transfer, but not only temporal metaphor. Also we can find some spatial and temporal motion in the evidence, including metaphoric temporal usage, and this section will carry out sample corpus analysis on as many examples as possible.

(1) 泰卦辞：泰，**小往大来**，吉。
Tài guà cí：tài，xiǎo wǎng dà lái，jí。
Tai, **small going big coming**, weal.
Greatness is when the small goes away and the great arrives. [Life] is good and [things] go well. (*The I Ching, or Book of Changes* – Yi Jing I. 08. Baynes & Wilhelm 1997. All the following examples' translations are from the same source, omitting full citations but specifying the location in the text. A few translations make reference to Legge, 1882.)

In example (1), "小往大来 *xiǎo wǎng dà lái* small go great come" is very abstract to understand, we can connect its meaning with different source domains to understand the metaphoric extension here. What is the domain? what is small? what is great? And what is one domain as opposed to another domain? What is concrete and what is abstract? These questions are closely related to metaphor. In fact, what is referred to are not concrete objects, but metaphoric entities. How can these abstract meanings be represented in terms of metaphorical extension from a core or etymologically original meaning? This study holds that *wang* and *lai* in the *YiChing* text essentially express the "change as motion" metaphor, which integrates motion, space and time together. Here, "change" not only refers to event developments, but also changing spatial positions. This is consistent with the view of cognitive linguistics, that is, the basic idea of cognitive linguistics is dynamicity, as reflected in Cognitive Grammar (Langacker, 1987).

Wang and *lai* refer to changes of spatial location in the course of events involving both spatial displacement and time lapse (i.e., the flow of time). In the *YiChing* text, as example (1) demonstrates, people often considered the bottom to be the deictic center. A striking fact that emerges from the graphics in Figure 1 is that motion from the bottom *yao* to the top *yao* in a hexagram is called *wang* 往, while motion from the top *yao* to the bottom *yao* is *lai* 来.

In the *Tai* 泰 hexagram, the trigram *Qian* 乾 is in the "down" position while the trigram *Kun* 坤 is in the "up" position. However, *Qian* usually represents heaven, which should be situated in the "up" position, while *Kun* represents earth, which should be situated in the "down". According to human perception, heaven is above and earth is below, while in the *Tai* hexagram heaven is below and earth above, which indicates that heaven and earth have interacted with each other. This interaction is the root of prosperity in everything. Therefore, *Tai* here indicates weal or good luck. This example demonstrates that social values can be expressed by the "change as motion" metaphor employing the spatial motion words *wang* and *lai*.

Figure 1

In the *YiChing*, *wang* 往 and *lai* 来 are sometimes used in a pair. As illustrated in Figure 1, in the *Tai* hexagram *Kun* 坤 is up while *Qian* 乾 is down. *Kun* is *yang* and *Qian* is *yin*, which means that the *yangyao* 阳 爻 (whole lines) have come to the "below" *gua*, and the *yinyao* 阴 爻 (broken lines) are going to the "up" *gua*. Within the cultural

context, *yang* is big and *yin* is small; hence "small goes" (*wang*) and "big comes" (*lai*). Here *wang* 往 means *liqu* 离去 (leave to go) and *lai* 来 means *lailin* 来临, indicating the motion in the event.

(2) 否卦辞：否，否之匪人，不利君子贞，大往小来。
Pi guà cí：Pi，fǒu zhī fěi rén，bú lì jun1 zǐ zhēn，dà wǎng xiǎo lái
Pi, Pi it bandit, NEG benefit gentleman persist, **big going small coming.**
Refrain from this. No one does not want to gain, but the wise person acts correctly when he lets great things go away and settles with the smaller. (*The I Ching, or Book of Changes* – Yi Jing I. 12.)

By contrast, the *Pi* 否 hexagram in example (2) represents the opposite situation or case. Here the relevant context is related to the special directional arrangement of "up" and "down" trigrams. This kind of special direction can be understood in terms of the process of divination (we can call it *YiChing* cultural reanalysis). One party (usually the speaker) is the divinator; the other party (the hearer) is the one who wants divination. The speaker and the hearer are positioned face to face throughout the whole divination process. In this case, *wang* and *lai* have deictic usage, not merely temporal usage. To some extent, the use of *wang* 往 here emphasizes the meaning of "the final point" (endpoint or goal), while the use of *lai* 来 emphasizes the meaning of "the starting point" (motion-source-path-goal).

In a word, these examples concretely demonstrate the complementary relationship between two opposites and their mutual transformation in motion in nature, which is also one kind of holistic thinking. This kind of process combines space, time and motion together.

(3) 复卦辞：复，亨，出入无疾，朋来无咎。反复其道，七日来复，利有攸往。
Fù guà cí：fù，hēng，chū rù wú jí，péng lái wú jiù。fǎn fù qí dào，qī rì lái fù，lì yǒu yōu wǎng。
Fu, smooth, out and in no illness, friends come not to have a disaster. Repeat again this rule, seven days come to return, good for go towards.
Returning [from a journey] that went well; you went out and came back unharmed. When friends have come and all went well, they turn back and return to their own way. Then, after seven days they return again. It is beneficial to have a destination to go towards. (The I Ching, or Book of Changes – Yi Jing I. 24.)

Example (3) shows that the construction "numeral time point + *wang* 往 or *lai* 来" can sometimes be used as a time-interval stamp. Meanwhile, the usage of *wang* and *lai* is also related to the psychological attitude of the speaker. The proposal of this study is that *lai* 'come' is often used in situations when the speaker refers to positivity, good expectations, and good aspects of things, which suggests that *wang* and *lai* are used evaluatively as well as to express motion.

Example (3) illustrates the application of this generalization; the part expressing positive meaning "*fù, hēng, chū rù wú jí.* 复, 亨, 出入无疾 (returning from a journey that went well)" appears together with *lai* 'come' (in terms of the function of 'come' in the sentence). This section argues that *lai* 'come' in the *YiChing* is often used to indicate a purpose, while *wang* is often used negatively, in terms of deviations from what people expect and bad things.

There are other cases of *wang* and *lai* appearing at the same sentence or construction in the following examples. The analysis of these examples using the Leipzig Glossing Rules will contribute to a better understanding of the *wang* and *lai* pair usage. *Wang* and *lai* appear very frequently in the *YiChing*, indicating motion or change. Further, *wang* and *lai* appear between the six *yao* in one hexagram, in terms of mutual exchanges between *yao*, and each *yao*'s interaction (i.e., the internal coming and going). As a result of these changes, one hexagram can be changed into another hexagram.

(4) 蹇·九三：往蹇来反。
Jiǎn jiǔ sān：wǎng jiǎn lái fǎn。
Nine three: Go difficulty come opposite.
The third nine: You'll meet a lot of difficulties to go there. You'd better come back. (*The I Ching, or Book of Changes* – Yi Jing I. 39.)

Here, *wang* 往 is a verb, and *lai* 来 and *fan* 反 are both verbs, which can be considered as one fixed phrase, meaning "come back". From the path of motion expressed by these verbs, we can infer the unity of space and time in the motion event, and the value it metaphorically expresses. For example:

(5) 震·六五：震往来厉，亿无丧，有事。
Zhèn liù wǔ：zhèn wǎng lái lì，yì wú sàng，yǒu shì。
Six five: Thunder go come strong, billion no lose, have something.
The fifth six: The thunder was strong. No big loss is expected, but you will have something to do. (*The I Ching, or Book of Changes* – Yi Jing I. 51.)

Wang and *lai* are verbs which indicate opposite directional motion. *Wang* means from here to there, while *lai* means from there to here. And they can be combined together to express the violent motion of the thunder.

The *wanglai* 往来 construction does look like a collocation, and can be considered a fixed phrase. We can call the *wanglai* 往来 construction a complex directional motion verb; this can help us probe into the special usages of *wang* 往 and *lai* 来 in terms of specific context.

(6) 解卦辞：解，利西南。无所往，其来复吉。有攸往，夙吉。
Jiě guà cí：jiě，lì xī nán。wú suǒ wǎng，qí lái fù jí。yǒu yōu wǎng，sù jí。
Release, benefit west south. No place go, MOD come return fortunate. Have go a destination, morning good fortune.
Released. The southwest works out. If you have no destination, your coming back is fortunate. If you have a destination, good fortune comes in the early morning. (*The I Ching, or Book of Changes* – Yi Jing I. 40.)

Although in example (6) *wang* 往 and *lai* 来 appear together in the same sentence, strictly speaking, this does not represent a real paired usage, since *youyouwang* 有攸往 here is a construction with a special meaning. This construction will be discussed in the analysis of the individual usage of *wang* 往 in the following section.

3.2. The individual usage of *wang* 往 in the *YiChing*

The directional motion verbs in ancient Chinese often appear in isolation. There are ten examples of pair usage of *wang* and *lai* in the *YiChing*, and all the rest are individual usages. This section argues that there are more token frequencies of *wang* and *lai* in isolation than in pairs. In ancient Chinese, directional motion verbs often appear in isolation. As illustrated in examples, sometimes *wang* 往 can have individual usages as the main or auxiliary verb. Among them, some use "V+Noun" construction, while some use "往 + V" construction, here the verb usually can represent "event". Now, since the section is also about semantic changes, it might be able to link the discussion to Thomas Li's view in Cognitive Linguistics (Li, 2018).

The "往 + V (EVENT)" construction expresses the notion "the agent leaves and goes somewhere to do something". The two verbs share one subject, indicating a relationship of purpose. The examples "往吝", "往吉" and "往见咎" are of this usage.

What is interesting to note is that the "*wang* 往 + V" construction here usually expresses the future temporal meaning, so *wang* 往 in "*wang jian lin* 往见咎" means "will meet" in the *YiChing*. *Wang* can also express past time in ancient Chinese, while *lai* can express future time. This can be considered a metaphorical mapping from the spatial to the temporal domain, that is, *wang* 往 and *lai* 来 are used as motion verbs to show literally "how a physical object moves from one place to another in space, the passage of time and the motion's succession from a starting point to an endpoint are presupposed in the description" (Talmy, 1975, 2017; Duong, 2021: 2), and this kind of mapping in details is also to reveal how motion relates to time. Cognitive linguists have recognized the inseparable relationship between time and motion. The directional motion verbs *wang* and *lai* reflect the relationship between time and motion, and the relationship between space, motion and time. Based on their use of motion verbs to express time, we can see that ancient Chinese linguistic conceptualizations recognized that time has the features of motion.

We suggested that *wang* 往 in "往 + V" pattern expressed a future temporal meaning. But this is far from being a semantic analysis. For example, the example "往见咎". As a matter of fact, a word for word translation for this example can be "go meet trouble" (be going to do something). This is then not very different from the English "go to see something", if we ignore the differences among them. In the English "go to see", 'go' can be said to imply the same future temporal meaning. But who would argue that this 'go' is not a verb but its meaning got more grammatical (a grammatical morpheme)? Perhaps identifying a formal criterion in future studies can demonstrate what a grammatical morpheme is in the *YiChing*. And how do 往 *wang* and 来 *lai* match it well?

We have to note that the use of "go (similar to *wang* 往 in Chinese)" to express future time is very common in languages across the world (Heine,1991). However, in ancient Chinese the singular *wang* 往 can express not only future time, but also past time. This usage can be identified in the other ancient works and has continued into modern Chinese. For example, in *Wei Zi* of the Analects

(7) 往者不可谏，来者犹可追。《论语·微子》
Wǎng zhě bùkě jiàn, lái zhě yóu kě zhuī.
Those who go cannot be embarrassed, and those who come can still chase.
As to the past, reproof is useless; but the future may still be provided against. (The Analects *Wei Zi*, the English translation by James Legge)"

Here, *wang* in ancient Chinese can express past time (it is not the case that the generic is specific metaphor that invites as past reading), while *lai* can express future time. Examples "往吝" and "往何咎" are the other two similar cases that can show the future time usage of *wang* in the *YiChing*. As in the previous examples, *wǎng yù yǔ* 往遇雨 in the example (8) means "shall meet rain", which is another case of future time expression by motion. By the interpretation we can identify that the *wang* here is closely related to the practice of divination, which can express the future meaning like the above examples.

(8) 睽·上九：睽孤，见豕负涂，载鬼一车，先张之弧，后说之弧，匪寇婚媾，往遇雨则吉。
Kuí shàng jiǔ: kuí gū，jiàn shǐ fù tú，zǎi guǐ yī chē，xiān zhāng zhī gū，hòu shuō zhī gū，fěi kòu hūn gòu，wǎng yù yǔ zé jí。

Top nine: Walk alone, see pig smear with mud, pack ghost a cart, before pulling up bow to shoot, then pull down to stop, bandit and suitors, go and meet rain, then auspiciousness.
The topmost nine: I left home. As I walked alone I saw a pig whose back was smeared with mud and a cart packed with people from the Kingdom of Guifang. You were alerted and pulled up your bow, but soon you happily greeted them holding a vessel of wine in your hand because they were not bandits. They were suitors. Going forward, he shall meet with (genial) rain, and there will be good fortune. (*The I Ching, or Book of Changes* – Yi Jing I. 38.)

Directional motion verbs are closely related with time and space (i.e., time and space are the two basic measurements of motion or physical movement), and these verbs can help us identify the relationship between time and space.

(9) 丰·六二：丰其蔀，日中见斗，往得疑疾，有孚发若，吉。
Fēng liù èr：fēng qí bù，yuē zhōng jiàn dòu，wǎng dé yí jí，yǒu fú fā ruò，jí。
Six two: Bright MOD hidden part, day middle see dou star, go gain suspect and illness, have believe express loyalty, auspicious.
The second six: Brightness was hidden and the sky was dark. The Big Dipper appeared in the sky at high noon. As you walked on, you would go and feel suspected. An annular eclipse was emitting light. It was really an auspicious omen. (*The I Ching, or Book of Changes* – Yi Jing I. 55.)

Wang in the *YiChing* does not always have the meaning of "going forwards"(forward motion), but sometimes expresses the meaning of "taking action to do something". For example:

(10) 节·九五：甘节，吉。往有尚。
Jiē jiǔ wǔ：gān jiē，jí。wǎng yǒu shàng。
Nine five: Content with frugal life, auspicious. Go have a reward.
The fifth nine: It is auspicious to be contented with a frugal life. You will get a due reward if you go on like this. (*The I Ching, or Book of Changes* – Yi Jing I. 60.)

Wǎng dé yí jí 往得疑疾 and *wǎng yǒu shàng* 往有尚 in examples (9) and (10) are future temporal usages, belonging to the "*wang* 往 + V" construction, very common in the *YiChing*. The "V + Noun" construction is used in example (11).

(11) 小过·九四：无咎，弗过遇之。往厉必戒，勿用永贞。
Xiǎo guò jiǔ sì：wú jiù，fú guò yù zhī。wǎng lì bì jiè，wù yòng yǒng zhēn。
Nine four: Not have mistake, NEG appreciate meet ZHI. Go danger must forbid, NEG use forever hold.
The fourth nine: You have not made any mistakes so far, which you should not appreciate excessively. You must always be watchful because dangers might arise at any time. This is not enough to relax-see what the future holds. (*The I Ching, or Book of Changes* – Yi Jing I. 09.)

Examples in the *YiChing* demonstrate other cases of the individual usage of *wang* 往. However, most of the uses of *wang* 往 here are closely connected with spatial and temporal usage by the *youyouwang* 有攸往 construction. This can be verified from the specific interpretations in the Leipzig Glossing Rules. For example:

(12) 遁·初六：遁尾，厉，勿用有攸往。
Dùn chū liù：dùn wěi，lì，wù yòng yǒu yōu wǎng。
First six: Left to the back, dangerous, NEG use to have AUX go towards.
The first six: To withdraw all the way back is harmful [because in this position] you can accomplish nothing. There is an objective to go towards. (*The I Ching, or Book of Changes* – Yi Jing I. 33.)

What is interesting in our perspective is that except for example "以往吝" (*yi* 以 can help us know the usage of expressing space by the individual usage of *wang* 往), all the examples use "有攸往" construction (only one "无妄往" in example, it is the opposite of "有攸往") to express the tendency of "good fortune", represent a metaphorical usage of *wang* 往, which connects space and time together. However, "无妄往" is the opposite of "有攸往", which is also a metaphorical usage of *wang* 往, indicating the unity of space and time by the quantification of " *wu* 无" or "*you* 有".

3.3. The individual usage of 来 *lai* in the *YiChing*

There are numerous instances of the individual usage of *lai* 来 in the *YiChing*. From the analysis of these motion verbs, we can infer that ancient Chinese used these motions as temporal measure items in the measurement of abstract distances. That is to say, in the representations of specific events, these motion verbs cover not only a certain space (i.e., the motion path of *wang* 往or *lai* 来), but also a certain amount of time (i.e., the time it takes to move

from one location to another). The conceptualization of distances can thus involve temporal aspects in addition to spatial ones.

Lai 来 has two kinds of meaning in the *YiChing*: one is *daolai* 到来 (arrive) (see, e.g., example 13), which is the opposite to *qu* 去; the other is the causative usage, as in "*shi* 使……*lai* 来 (cause sth/sb come)" (see, e.g., example 14). These usages are similar in lexical meaning, but different in terms of semantic function. The former usage associates with a semantic role of agent, while latter links the two semantic roles of agent and cause.

(13) 比·初六：有字比之，无咎。有孚盈缶，终来有它，吉。
Bǐ chū liù：yǒu zì bǐ zhī。wú jiù。yǒu fú yíng fǒu，zhōng lái yǒu tā，jí。
First six: Have word hold ZHI, not have blame. Have truth a full earthen bowl, finally <u>come have</u> it, fortune.
The first six: It shows its subject seeking by his sincerity to win the attachment of his object. There will be no error. Let (the breast) be full of sincerity as an earthenware vessel is of its contents, and it will in the end bring other advantages. (*The I Ching, or Book of Changes* – Yi Jing I. 08.)

In example (13), the "来 + V + O" construction represents some special features of motion verbs that are also typical features of Sinitic languages. *Lái yǒu tā* 来有它 means "will in the end bring other advantages". *Lai* in this construction is not used as a main verb, but auxiliary verb (see the grammatical analysis by Zhao, 2010); the auxiliary event word *lai* 来 in fact refers to the completion and realization of the action, which is a combination of time and result (i.e., aspectual meaning), similarly to the perfective in English.

As in example (13), "终来有它，吉" is treated as a case of semantic change (causative) pathway. A pathway must be the way along which a semantic change process developed. As far as we can see, 来 can be treated easily as a verb meaning "come", in the end good fortune came with it (*lai* was specified as a verb). If there is any critical evidence to say otherwise, no argument is given in the text.

(14) 丰·六五：来章，有庆誉，吉。
Fēng liù wǔ：lái zhāng，yǒu qìng yù，jí。
Six five: Come light, have celebrated appraise, auspicious.
The fifth six: Light resumed. Everybody celebrated and applauded. This was extremely auspicious. (*The I Ching, or Book of Changes* – Yi Jing I. 55.)

In example (14), if the intransitive *lai* connects with the object *zhang* 章 (light), it acquires a transitive (that is causative) meaning.

In a word, *lai* 来 has the full lexical meaning of "come". *Lai* in the *YiChing* mainly has two meanings: one is "come", which is opposite to *qu* 去 (e.g., in the same hexagram *Zhen* 震, they use the same construction "*zhen lai hao hao* 震来號號" and "*zhen lai li* 震来厉" to show the metaphorical usage of the individual usage of *lai* 来, indicating the unity of space and time); the other is "cause something/somebody to come" (causative usage). In the *YiChing*, if the intransitive *lai* connects with the object *zhang* 章 (light), it takes on its transitive meaning. The two usage types are lexically identical but semantically and grammatically different. All the other examples cited belong to one of these two categories.

4. Main findings and discussions of the directional motion verbs in the *YiChing*

This section will elaborate the study's main findings and describe the interpretations and hypotheses regarding metaphoric extension (i.e., from spatial usage to temporal, and other abstract usages). Generally speaking, both the co-occurring usages and individual usages of *wang* 往 and *lai* 来 suggest a possible metaphoric pathway. This is particularly true for the co-occurring usage, which is a metaphoric usage, wherein motion is metaphorical rather than literal.

Regarding the variation in grammatical constructions within which the verbs *wang* 往 and *lai* 来 occur, this article hypothesizes the co-occurring usage to be the most basic usage, considering the context of the cultural practices within which the *YiChing* was embedded. The following sections summarize the data and give a succinct analysis.

4.1. Quantitative analysis results for *wang* 往 and *lai* 来

The results of quantitative analysis of *wang* 往 and *lai* 来 (including frequencies of types and tokens, as well as collocation analysis) can be seen in Table 1:

Types and collocation	Number of tokens	Proportional frequency
Co-occurring usages	10	24.4%
Individual usage of *lai* 来 (mainly "来 + V" construction)	8	19.5%
Individual usage of *wang* 往	11	26.8%

Types and collocation	Number of tokens	Proportional frequency
"有攸往" construction	11	26.8%
"无攸往" construction	1	2.5%
Total usage of *wang* 往	23	56.1%

Table 1. Quantitative analysis results for *wang* 往 and *lai* 来 (only Jing text)

The corpus in this section encompasses only the whole Jing text, including 41 instances of its 450 statements. In CCL, the corpus includes not only Jing Texts, but also Commentaries on Yi, in this way it got 61 tokens of *lai* and 96 of *wang*, respectively. The *wang-lai* pairs are 22, such as "往来，小往大来 and 日往则月来", which can have this discrepancy, comparing with Table 1.

There are ten examples of pair usage, and all the others represent individual usages of *wang* 往 and *lai* 来 in the *YiChing*. Thus, there are more token frequencies of *wang* and *lai* in isolation than in pairs. In ancient Chinese (like in modern Mandarin Chinese), directional motion verbs often appear in isolation.

In ancient Chinese, serial verb constructions including *lai* 来 appear frequently. In the *YiChing*, the "来 + V" construction appears in eight places. The "来 + V + O" construction can express the meaning "the agent comes somewhere to do something", indicating a relationship of purpose.

By collocation analysis, we can identify contiguous collocations of words. The individual usages of *wang* 往 here are closely connected with spatial and temporal usage through the eleven *youyouwang* 有攸往 constructions. Most of the examples use this construction to express the tendency towards "good fortune" (although one uses *wuwangwang* 无妄往, with the opposite meaning to *youyouwang*). Here *youwang* 攸往 has two possible meanings (*you* 攸 refers to a certain place or situation, and *wang* 往 refers to the movement, either go forth or back): one is connected to *yiwang* 以往, which indicates movement from the present to a previous situation (i.e., back or backwards), and from the near to the far distance (referring to the future); the other meaning is connected to *yiwang* 已往, which indicates the movement from a previous situation to the present situation, and from the far to near distance (referring to the past). The deictic center is an essential part of the meaning here. The ideas of "backwards", "back" and "near or far"derive from these source concepts and are related to the conceptualization of TIME.

As Heine stated: "Lexical items or constructions lose their original meaning when pressed into service for grammatical functions, and they become etymologically opaque" (Heine, 1997: 153). It is worth pointing out that if the *youyouwang* 有攸往 construction is placed in the top *yao* in a hexagram (where the top *yao* is "up" and the first *yao* is "down"), it connects to *yiwang* 已往, representing the past. In contrast, if the *youyouwang* 有攸往 construction is placed in the first or bottom *yao* (*chuyao* 初 爻), it connects to *yiwang* 以往, representing the future. In short, judging from the available data, it appears that *wang* 往 in the *youyouwang* 有攸往 construction is not used as a verb, but has complementary (spatial and temporal) usage.

Further, this data analysis shows that *wang* 往 and *lai* 来 are closely related with change in terms of both the co-occurring and individual usages.

4.2. Semantic interpretations of 往 *wang* and 来 *lai* in the *YiChing*

The variety of semantic interpretations or values of *wang* 往 and *lai* 来 in the *YiChing* can be clarified using arrows and directions to show their semantic meanings (in particular, their deictic orientations). There are five kinds of cases in total. Each of them represents a distinct semantic cluster, and there is a semantic or conceptual prototype for the sequencing of the following five cases, which may reflect diachronic development.

Wang 往 and *lai* 来 in the *YiChing* are verbs which express a change of location on the part of the subject relative to the deictic center (usually the location of the speaker, or less often the hearer), indicating the figure is moving toward or away from the speaker or not. Li and Thompson (1989: 412) proposed that only when reaching a destination is implied, directional motion verbs are used.

Wang and *lai* are verbs that indicate a tendency of action – that is, a change in spatial motion, which is closely connected in perception with temporal concepts. The tendency of verbs inevitably involves the concept of time and space; that is, the verbs *wang* and *lai* contain temporal and spatial elements. The temporal element refers to the time indicated by the words in the sentence and the time of utterance (the latter is more implicit in the meaning or context), and the spatial elements mainly refer to the starting point and the ending point. In the vocabulary pattern of *wang* and *lai*, the three elements indicated by the words are the time, the starting point and the ending point. Depending on the context, and the historical development of the sentence, one, two or all of these elements may appear.

Figure 2. Case 1

In Figure 2, *lai* 1 (a path towards the center) and *wang* 1 (a path away from the center) are a pair, which shows that time is not moving, but ego is moving; *Lai* 2 and *wang* 2 are another pair, which shows ego is not moving, but time is moving (Clark,1973; Li, 2004).

Lai and *wang* can have different directions in ancient Chinese, which can help us interpret their ambiguous semantics.
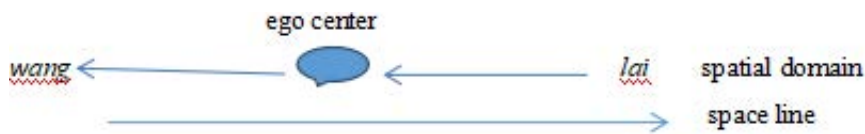

Figure 3. Case 2

Figure 4. Case 3

Figures 3 and 4 represent usages of *wang* and *lai* from the perspective of space (spaceline refers to the reference perspective from space). Figure 3 represents *wang* as a path away from the center on the left while Figure 4 represents *wang* as a path away from the center on the right; Figure 3 shows *lai* as a path towards the center from the right while Figure 4 shows *lai* as a path towards the center from the left.

Figure 5 represents the directional motion verb construction involving the moving-ego and moving-time schemas (see Ahrens & Huang, 2002).

Figure 5. Case 4

Figure 5 is the temporal representation of *wang* and *lai* from the perspective of time (timeline refers to the reference perspective from time). *Wang* and *lai* in Figure 5 can be described in semantic expressions as the followings:

- *Lai*: Reverse (time), the path towards me;
- *Wang*: Reverse (time), the path deviates from me.

The "forward timeline shift" and related issues are shown in Figure 6 below:

Figure 6. Case 5

As the arrow shows, *wang* and *lai* in Figure 6 can be described in semantic expressions in the following terms:

- *Lai*: Forward (time), the path towards me;
- *Wang*: Forward (time), the path deviates from me.

Wang and *lai* refer to a "deictic motion event". *Wang* and *lai* have the features of being deictic and mobile, which correspondingly implies the variability of their spatial positions, the directionality and order of motion. Their internal structures and temporal structures are more consistent, compared to *qian* and *hou* (front/earlier and back/later) and *shang* and *xia* (up and down), which are also used to express temporal relations (Yang *et al.* 2023).

4.3. Deixis and reference point of *wang* 往 and *lai* 来

The definition of deixis originates from the theory of semantic field (Lyons, 1977: 637), in which the spatiotemporal context created is emphasized. Deixis mainly refers to "properties of utterances, determined by and interpreted by knowing certain aspects of the communication act in which the utterances in question can play a role" (Fillmore, 1997: 61). Deixis is very important for metaphorical mapping. This section deals with subjective reference to spatial displacement. Deixis is a vector relationship that uses the speaker, hearer or third party as a reference point. In the case of *wang* 往 and *lai* 来, the deictic center anchors a path towards or away from the speaker. Subjective factors are added when expressing spatial displacement. The actual path and direction of the displacement is objective and does not change due to any change of the reference position, but the expression of the displacement path and direction is affected by the factors affecting the speaker (Wang, 2018: 135). As a subjective spatial reference point, the speaker's position may sometimes not be the actual position of the speaker when he speaks, but somewhere in the speaker's subjective assumptions (including the position of other participants).

We now further discuss the deixis and reference point of directional motion verbs 往 *wang* and 来 *lai* in the *YiChing*. The deictic center of *lai* 'come' and *wang* 'go' appears to have changed in history. In the *YiChing* text, when the action or event is moving toward the speaker, the directional motion verb tends to use *lai* 'come', and the deictic center is the speaker; when the action is moving away from the speaker, the directional motion verb can also use *lai* 'come', and the deictic center is also the speaker. And *wang* 'go' means "leaving or to leave", there is no fixed connection with the deictic center. In any case, the verb *lai* is always deictic, while *wang* is not always deictic, as is also the case for other languages (Wilkins and Hill, 1995). The universality of deixis in temporal reference is confirmed by the *YiChing* text.

The notion of Frames of Reference (FoR) has been widely used in linguistics, psychology and neuroscience. A spatial location reference reflects the cognitive process and method of a language group, in terms of spatial location relationships in cognitive space. The understanding of *lai* 'come' and *wang* 'go' requires a determination of location and time of utterance (i.e., the reference point). The understanding of *lai* 'come' and *wang* 'go' is based on the speaker, often taking the speaker as reference.

Wang 往 and *lai* 来 in the *YiChing* usually imply the speaker as the deictic reference point. For example, the speaker "you" is the reference point to interpret the hexagrams. The speaker is the most commonly used, default, unmarked and most economical reference point for human beings. Temporal cognition is inseparable from the reference point. Dating etc. are instances of S-time (sequence time), not D-time (deictic time) (Sinha et al., 2011). Generally speaking, *wang* and *lai* in the *YiChing* describe movement away from and towards the speaker. They are deictic verbs, which implies the relationship between the alleged motion of trajector and ego. In any case, the verb *lai* is always deictic, while *wang* is not. This is an important point because in many languages "go" are both deictic or directional motion verbs and general motion verbs.

4.4. Subjectification as motivation for semantic change of *wang* 往 and *lai* 来

Subjective orientation verbs appear a lot in the *YiChing*. Everything seems possible, since, as Anttila (1989: 229) held: "there are no exact rules for handling semantic change; the final factor here is necessarily the common sense and the experience of the individual scholar". The development of "go/come-V" from "go/come-and-V" can be motivated by subjectification (Nicolle, 2007), as Langacker uses the term (see for Langacker, 1990, 1999), but the details are not clear. This study can provide some details regarding the "*lai* 来 + V" and "*shi* 使……*lai* 来 (cause sth/sb to come)" constructions found in the examples in section 3.2. "When the perspective of the 'viewer' or conceptualizer of an event (typically the speaker) is incorporated into the description of the event rather than being expressed in a separate expression. A subjective construal of an event arises when the 'subject of conception' is implicit or 'offstage'" (Langacker, 1999: 149; Poortvliet, 2017).

In studying the cognitive motivations of *wang* 往 and *lai* 来, our attention is mainly on the synchronic phenomenon of language, while paying relatively little attention to its application in historical linguistics. Many phenomena appearing in the process of language evolution can be reasonably and naturally interpreted from the perspective of cognitive linguistics. This article does not focus on the synchronic analysis of subjectification. A useful example of such analysis is Lu's article (2016) on *shang* 上 (up), which represents the standard Langackerian (synchronic) approach to subjectification.

In the *YiChing* text, subjectification plays an important role in the evolution of the "*lai* 来 + V" construction (e.g., in example 13) and the "*shi* 使……*lai* 来 (cause something/somebody to come)" construction (e.g., in example 14). However, how this factor operates is not specified in the past research. Langacker (1990) defines subjectification as "realignment of some relationship from the objective axis to the subjective axis", and that the semantic change of a structure may be attributed to some objectively–construed relationship being replaced by another subjectively construed relationship, such as the "reference point–target" relationship constructed by the conceptualizer through mental scanning. According to the research into cognitive grammar, the evolution of the auxiliary "have" offers a good example of the significance of subjectification in motivating the changes in some structures. This study hopefully provides important further data about the operation of subjective and objective construal in the semantic changes of *wang* 往 and *lai* 来, saying what kind of subjectification it is dealing with.

Additionally, based on analysis of the above results, this study made a number of observations that the individual usages of *wang* and *lai* in the *YiChing* have a higher frequency than paired usage (the actual number of frequen-

cy is in Section 4.1).This study conducted a corpus study of the *YiChing* text to cross–validate the previous hypothesis that a large number of directional motion verbs in ancient Chinese (including *wang* and *lai*) are often used alone or in isolation, in terms of the construal of path of motion, indicating a verb-framed structure consistent with other analyses of ancient Chinese as a verb-framed language (Peyraube, 2006; Talmy, 2000: 118-119; Xu, 2013 etc.).

4.5. "CHANGE AS MOTION" metaphor

Metaphors can involve the explicit use of motion verbs such as "come, go, pass, arrive, and so on"; they can be stative and orientational as well as dynamic, sometimes involving fictive motion (Talmy, 1999; Duong, 2021). Looking at the co-occurring usages and individual usages of *wang* 往 and *lai* 来, most of them are metaphoric usages. They are not the movement of concrete objects, but some kind of abstract entity revealed by space-time expressions, that is, the metaphorical mappings from the source domain of motion onto the target domain (of change) of space and time.

Space-time expressions are very common in the *YiChing*. Spatial constructions (e.g., moving-ego, moving-event or positional) and related expressions involving gaze (i.e., frame of reference) can be used with temporal meanings. Space and time are not only closely related in the physical world, but they are also related in the mental world of the *YiChing*.

Here we try to examine *wang* and *lai* from the view of deictic usages, taking into account the question: what is actual movement? Generally speaking, co-occurring usage is mainly about metaphoric usage, not literal; both the co-occurring usages and individual usages suggest a possible semantic change pathway. Metaphoric extension (e.g., spatial usage to temporal and other abstract usages) plays an important role in the semantic change of these directional motion verbs.

It is argued that space and time cannot be analyzed as separate domains, but a single domain. *Wang* 往 and *lai* 来 in the *YiChing* appear a lot, sometimes in the same sentence or construction, sometimes individually. However, most of these usages are metaphorical: they do not encode the movement of concrete objects; rather, what moves is some kind of abstract entity. We will also examine *wang* 往 and *lai* 来 usages from perspective of deixis, taking into account the question of what movement actually is.

We further propose that the metaphorical usages of *wang* 往 and *lai* 来 in the *YiChing* include not only temporal metaphor, but also spatial metaphor. Space and time are linked to each other in human thinking. Consider the above analysis of these directional motion verbs in the *YiChing*; these verbs refer to specific or abstract events, consisting of movement from one location to another, and cover not only a certain space (e.g., the motion path of *wang* 往 or *lai* 来), but also a certain amount of time (i.e., the time it takes to move from one location to another). These can thus be called space-time metaphors. In a word, what we expect to find is that the metaphorical transfer from time to space should be as common as transfer from space to time. The "Change As motion" metaphor is a conceptualization that captures the way we use our everyday bodily experiences with motion to conceptualize change.

4.6. Cultural context and usages of *wang* 往 and *lai* 来

Incorporating the cultural context (including cultural practice) of the *YiChing*, we argue that the directional motion verb *lai* means "come close to the speaker", and thus expresses positive emotions related to the speaker; conversely, the directional motion verb *wang* means to deviate away from the speaker, thus expressing negative or neutral emotions related to the speaker. We will explain in better detail how deixis is related (if it is) to positive and negative emotional and value polarities. In particular, *wang* and *lai* can be treated as spatial motion verbs. The study of *wang* and *lai* reveals that there are more changes in movement related to the verbs – not only changes in people and things, but also changes in events.

The directional motion verb *lai* means come close to the speaker, and thus expresses more positive emotions related to the speaker; the directional motion verb *wang* means to deviate away from the speaker, thus expressing negative or neutral emotion related to the speaker. In other words, the movements of *wang* and *lai* can produce weal and woe or good and bad things. This has been noted before (e.g., Radden, 1996; Wei, 2018), but in future we need to explain in better detail how deixis is related (if it is) to positive and negative emotional and value polarities. The study of *wang* and *lai* reveals that there are more changes in movement related to the verbs – not only changes in people and things, but also changes in events.

Wang 往 and *lai* 来 appear very frequently, indicating the movement or change of the six *yao*. Position or orientation (*fangwei* 方位) was never a purely spatial concept in the modern sense in ancient China. The orientation itself indicates a relationship. It is a structure containing thousands of changes – for example, *wang* 往, *lai* 来 and *shun* 順, and *ni* 逆 are expressions of the internal time structure of the positional or orientational map.

What is more, contextual influence has played an important role in past research. Heine proposed that the "source meaning can be inferred with reference to the larger range of contexts in which the item concerned occurs" (Heine, 1997: 144). The meaning and function of words are mostly manifested in specific contexts, so a change of context will affect the semantic changes of *wang* and *lai* in the *YiChing*. The formation of the purpose marks *wang* 往 and *lai* 来 is influenced by the language environment in the *YiChing*, as the above section mentioned. In the case of both the speaker and the listener knowing their context, the directional motion verbs *lai* 'come' and *wang* 'go' express the semantics of "where to go and come, and what to do"; omitting the destination of "coming and going" hence does not affect the sentence expression within a specific context. In the process of using language, "coming and going" gradually evolved from a specific displacement to a psychological tendency. When it is applied to a

specific sentence, it can express the subjectification of the subject. Subjectification is a motivating factor that has been proposed in the development of both *go*-V and *come*-V (Nicolle, 2009). This subjectification is determined and manifested by the sentence context. For example, the auxiliary event word *lai* 'come' in example (12) refers to the completion and realization of an action. However, given limitations of space and data, this point should be clarified in more detail in future.

The cultural context of the *YiChing* has had some influence on the semantic evolution of *wang* 往 and *lai* 來. What is more interesting, the *YiChing* is a book that has another name in the western countries: *The Book of Changes*. This book does indeed mainly deal with all the changing things in the world, including the change of context.

5. Conclusion

This article reports a study of the usage of the directional motion verbs *wang* 往 and *lai* 來 in an ancient Chinese text, the *YiChing*. Through cognitive semantic analysis, this article aimed to investigate the semantic changes of *wang* 往 and *lai* 來 and the cognitive motivations in ancient Chinese through analysis of the two usages in the *YiChing*. It identified the contexts where *wang* and *lai* occur in the same clause and in isolation to address their semantic changes in relation to the conceptualization and representation of space, time and motion in ancient Chinese.

Based on a corpus analysis of the *YiChing*, combined with a qualitative interpretive analysis, we propose that the majority of co-occurring usages are metaphorical. Metaphorical uses can also be found in the single usage of tokens of the two verbs. These metaphors are motivated by the cultural practices and values that form the context for the *YiChing* as a cultural artifact as well as a classical text. And these directional motion verbs are based on metaphorical extension leading to their semantic change. It is claimed that metaphor and subjectification are two issues investigated in the article (but not metonymy, iconicity) and some meaningful discussions related to subjectification or metaphor are found within it.
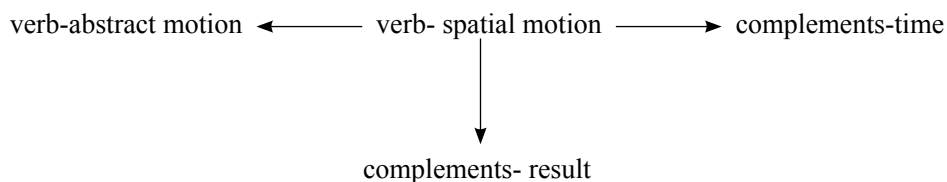

Figure 7. Semantic change pathway of *wang* and *lai*

To establish a metaphoric pathway it is necessary to have different corpora from different times. However, the following diagram shows both metaphoric semantic extension and a shift of grammatical category within the same corpus. The most this article can do with a single corpus is to put forward a hypothesis of a path of semantic change that can be used for testing more data. A slightly different interpretation of the data for this hypothesis includes two stages: (1) lexical meaning change through metaphoric extension; and (2) change in grammatical category.
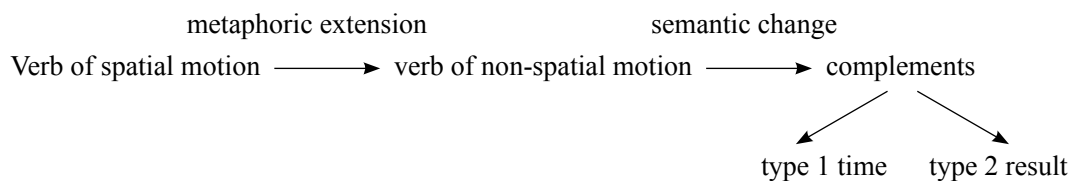

Figure 8. Metaphoric pathway of *wang* and *lai*

We were looking for what the motion verbs 往 and 來 have grammaticalized into. That is, what kind of grammatical morphemes 往 and 來 are in the *YiChing*. It is also necessary to specify, in addition to a developmental pathway, what kind of temporal term a grammatical morpheme is, i.e., a past tense marker, a present tense marker, a future tense marker, a progressive aspect marker, a perfective aspect, etc. Future work will address these issues.

Acknowledgements

Centre de Recherches Linguistiques sur l'Asie Orientale (CRLAO) and the Institut National des Langues et Civilisations Orientales (INALCO), and to Professors Liu Zhengguang, Yu Xiaoqiang and others at the School of Foreign Languages, Hunan University for their valuable comments and suggestions, and for many deep discussions of the issues reported in this article.

There is no conflict of interest affecting the publication of the article in this Journal.

CREDIT Authorship Contribution

The research was carried out while the first author was a doctoral student (2016-2020) at Hunan University, School of Foreign Languages and the second author was senior faculty at the same institution. The first author had primary responsibility for both the data analysis and the drafting of the text. The second author provided theoretical and methodological guidance, and textual feedback on successive drafts of the article. Both authors contributed to the article and approve the accepted version for publication.

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