

In and Out: Senses and Meaning Extension of Mandarin Spatial Terms *nei* and *wai*

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Abstract

This paper explores the semantic properties and extension paths of modern Mandarin Chinese spatial terms *nei4* 內 ‘in, inside’ and *wai4* 外 ‘out, outside’. Their symmetric and asymmetric contrasts are accounted for with idealized cognitive models (ICMs) and metonymic models. These models are used to delineate the core meaning and main meaning extension routes of *nei4* and *wai4*: from the area of a region to the length of the radius or side, and then to distance. Locations of the observer, marked foci, container metaphors and social backgrounds also contribute to the asymmetry of the two terms. The synchronic difference between *nei4* and *wai4* can also be attributed to diachronic changes.

1. Introduction

1.1 Symmetry and Asymmetry of *nei4* and *wai4*¹

Nei4 內 ‘in’ and *wai4* 外 ‘out’ are two Mandarin location terms that represent speakers’ conceptualization of space. It is shown that they behave similarly and share an extensive set of collocation patterns as in (1).

- | | |
|---|--|
| 1a. <i>wu1nei2</i> 屋內 ‘in the house/room’ | 1a. <i>wu1wai4</i> 屋外 ‘out of the house/room’ |
| b. <i>nei4ce4</i> 內側 ‘inside’ | <i>wai4ce4</i> 外側 ‘outside’ |
| c. <i>nei4xiao1</i> 內銷 ‘sell domestically’ | <i>wai4xiao1</i> 外銷 ‘export’ |
| d. <i>zai4 huang2gong1 zhi1 nei4</i> 在皇宮之內
‘in the palace’ | <i>zai4 huang2gong1 zhi1 wai4</i> 在皇宮之外
‘out of the palace’. |
| e. <i>yi4bai3 kong1chi3 yi3nei4</i> 一百公尺以內
‘within one hundred meters’ | <i>yi4bai3 kong1chi3 yi3wai4</i> 一百公尺以外
‘beyond one hundred meters’ |

¹ Mandarin tones are marked with numerals. 1 stands for the first tone, a high level tone, 2 the second tone with a rising contour, 3 the third tone, a falling and rising tone, 4 the fourth tone, a high falling tone, and 5 the neutral tone.

However, there are also significant contrasts in terms of compound word formation as in (2):

2a. * <i>ye3nei4</i> 野內	<i>ye3wai4</i> 野外 ‘the field’
* <i>yi4nei4</i> 意內	<i>yi4wai4</i> 意外 ‘unexpected, accident’
<i>ren4nei4</i> 任內 ‘during one’s tenure’	* <i>ren4wai4</i> 任外
b. * <i>nei4guo2</i> 內國	<i>wai4guo2</i> 外國 ‘foreign country’
* <i>nei4qi1</i> 內戚	<i>wai4qi1</i> 外戚 ‘maternal relatives’
<i>nei4mu4</i> 內幕 (<i>xiao1xi2</i> 消息)	* <i>wai4mu4</i> 外幕(<i>xiao1xi2</i> 消息)
‘inside (news)’	
c. * <i>nei4yu4</i> 內遇	<i>wai4yu4</i> 外遇 ‘extramarital affairs’
<i>nei4ding4</i> 內定 (<i>ren2xuan4</i> 人選)	* <i>wai4ding4</i> 外定 (<i>ren2xuan4</i> 人選)
‘tapped (candidate)’	
d. * <i>pai2nei4</i> 排內	<i>pai2wai4</i> 排外
<i>jian4nei4</i> 賤內 ‘(my) humble wife’	‘exclude foreigners; xenophobia’
* <i>jian4wai4</i> 賤外	
e. <i>zai4 wu3 nian2 yi3nei4</i> 在五年以內	* <i>zai4 wu3 nian2 yi3wai4</i> 在五年以外
‘within five years’	
f. <i>yi4bai3 yuan2 yi3nei4</i> 一百元以內	* <i>yi4bai3 yuan2 yi3wai4</i> 一百元以外
‘less than one hundred dollars’	

The goal of this paper is to account for both the similarities and contrasts in terms of lexical conceptualization.

1.2 Internal structure of *nei4* and *wai4* collocations

One possibility to account for the above asymmetry is to examine structural and functional contrasts. As noted, the above examples fall into the following patterns according to their internal structures:

3. a. Noun+ *nei4/wai4*, e.g. examples in (1a) and (2a)
- b. *nei4/wai4*+ Noun, e.g. examples in (1b) and (2b)
- c. Verb+ *nei4/wai4*, e.g. examples in (2d)
- d. *nei4/wai4*+Verb, e.g. examples in (1c) and (2c)
- e. *zai4/yu2*+ NP+*yi3/zhi1*+*nei4/wai4*, e.g. examples in (1d), (1e), (2e) and (2f)

It is clear that an explanatory account of the contrasts between *nei4* and *wai4* cannot rely solely on structural terms. In this paper, we will present a concept-based lexical account.

2. Literature review and comparison of English *in* and Chinese *nei4*

As it turns out, the literature on *nei4/wai4* (in/out) has as wide range as their distribution. In this section, we will review English *in* and then propose questions regarding Chinese *in* and *out*.

2.1 Literature review on English *in*

Clark (1973), Talmy (1983), Jackendoff (1983:162-164), Herskovits (1986), Jackendoff and Landau (1992, 1993), Levinson (1996:186-187), Talmy (2001) have studied English *in* and explicitly showed the following properties of English *in*:

- 3a. *In* belongs to a Place concept. (Talmy 1983, 2001)
- b. *In* denotes a three-dimensional space, which can be entirely enclosed, partially enclosed, bounded or unbounded. (Clark 1973, Jackendoff and Landau 1992, 1993, Levinson 1996:186-187)
- c. The ground of *in* should contain an interior. (Jackendoff and Landau 1992, 1993)
- d. The relation between the Figure and Ground of *in* should be close. (Herskovits 1986)
- e. Other factors:
 - (i) Perspective: close-up view, precise knowledge of the position
 - (ii) salience, (iii) penetration, (iv) convention, (v) function. (Herskovits 1986)

Comparing with absolute coordinates, *north*, *south*, *west*, *east*, and relative or anthropocentric coordinates, *left*, *right*, *front*, *back*, scholars seem to have implicitly suggested that English *in* denote an intrinsic coordinate, cf.:

- | | |
|--------------------------|--------------------------------------|
| 4a. <i>John came in.</i> | 5a. <i>John is in the house.</i> |
| b. <i>John went in.</i> | b. <i>John is out of the house.</i> |
| c. <i>John came out.</i> | 6a. <i>John is inside the house.</i> |
| d. <i>John went out.</i> | b. <i>John is outside the house.</i> |

Come and *go* are deictic verbs and both of them can co-occur with *in* and *out* as in (4a) to (4d), which suggests that *in* and *out* are not underspecified by a perspective. Whether the observer is in the house or not, s/he can describe another person's being in or out the same house as in (5)-(6). Viewpoints of the observer do not seem to play an important role in *in* and *out* orientations. Further, as long as the Ground contains an interior, *in* and *inside* are synonyms, so are *out* and *outside*. They can be replaced by the other without violate any syntactic, morphological, or semantic rules.

2.2 Comparison of *in* and *nei4*

Does Chinese *nei4* act like English *in*? The answer may be both ‘Yes’ and ‘No’, because morphologically, both *nei4* and *in* can be pre-nominal modifiers, e.g. *nei4lu4* 內陸 and *inland*. Furthermore, from the point of view on asymmetry, there are differences between Chinese *nei4* and *wai4*, so are there between English *in* and *out*. For example, (7a)-(7c) below are symmetric:

- 7a. *inboard/outboard; inland/outland; inside/outside; indoor/outdoor; infield /outfield; incurve/outcurve;*
b. *inflow/outflow; input/output; inrush/outrush; inlet/outlet; inner/outer;*
c. *inpatient/outpatient; insight/outside; insole/outsole; inward/outward*

And (7d)-(7g) are asymmetric²:

- 7d. *into/*outto/out of*
e. *include /*outclude/exclude;*
f. *influx /?ouflux; inscribe /?outscribe*
g. *outcast/?incast; outspread/?inspread; outstretch/?instretch*

Furthermore, both *in* and *nei4* show the penetration property. They select not only solid objects, but also the liquid, comparing (8) and (9)³:

- 8a. *sugar and milk in the coffee* (Herskovits 1986:151)
b. *ka1fei1 nei4 you3 tang2* 咖啡內有糖
9a. *in the clay* (Herskovits 1986:151)
b. *nian2tu3 nei4* 黏土內

However, English *in* and Chinese *nei4* may behave differently. Concerning on the static spatial uses, *in* is a preposition whereas *nei4* is a postposition in (10). Though both *in* and *nei4* can collocate abstract nouns such as *guan1xi5* 關係 ‘relation, relationship’, only *in* can take *memory* as shown in (11). *In* as a preposition can co-occur with other spatial terms, but *nei4* cannot, cf. (12a) and (12b). In addition to expressing states, *in* can also denotes certain functions as *wearing* in (13a) and *receiving education* in (13b) (Herskovits 1986). These sentences cannot be interpreted with *nei4*.

- 10a. *John is in the house.*
b. *Li3si4 zai4 wu1nei4* 李四在屋內。

² Other asymmetric examples such as *interior/*outterior/exterior, intramural /*outtramural/extramural, intrinsic /*outrinsic/extrinsic*, etc. have French and Latin origins.

³ Herskovits (1986:151) shows the difference between *in* and *inside*. *Inside* selects only objects only, e.g. *sugar and milk in/*inside the coffee* vs. *in/inside the clay*. Chinese *li3(mian4)* can take both kinds of objects.

11a. *in his memory*

b. **ta1de5 ji4yi4 nei4* 他的記憶內

12a. *in front of the house*

b. **wu1qian2nei4/*wu1nei4 qian2* 屋前內/*屋內前

13a. *a girl in red.*

b. *He is in school.*

It is reasonable to assume that mapping principles contributed the above asymmetrical phenomena. The direction of this metaphorical extension is from space to the others. (q.v. Heine, Claudi and Hünemeyer 1991: 161, OBJECT>SPACE>TIME>QUALITY.) We will try to tackle their metaphorical extensions.

3. Metaphorical extension of *nei4* and *wai4*

In this section we adopt the idealized cognitive models (ICM) proposed by Lakoff and Johnson (1999) to account for the data of *nei4* and *wai4*.

3.1 Idealized cognitive models of *nei4* and *wai4*

What semantic elements can be used to delineate *nei4* and *wai4*? Let us start to think about this issue from the symmetrical cases in (1a)-(1d). Those nouns in (1a) and (1d) denote an area or an object which denotes a region, e.g. *guo2* 國 ‘country’, *xiao4* 校 ‘school’, *wu1* 屋 ‘house, room’, *ch1* 車 ‘car’, *quan1* 圈 ‘circle’ in (1a), and *huang2gong1* 皇宮 ‘palace’ in (4a). They may function as a container. *Nei4* and *wai4* refer to the position of the object as inside or outside of the region or container. The region or container may have entrances or boundaries such as *men2* 門 ‘door’, *sai4* 塞 ‘citadel’, and *guan1* 關 ‘barrier’. It is obvious that the size and shape of the region or container are topological. The region/container may be as large as a country or as small as a car or a circle. It may have a regular shape as a circle or a square like a door, yet it may also have an irregular outlook as a country or a school. Hence, the idealized cognitive model for *nei4* and *wai4* may be a region, totally or partially enclosed, with or without an entrance, but normally with sides and boundaries or angles. The most important of all is that it must have a certain area which can be recognized as an interior. Therefore, the idealized cognitive model, a region or a container, can be illustrated as (14) below.

14. ICM of *nei4* and *wai4*

Region/container: $\left\{ \begin{array}{l} \text{area} \\ \text{boundary/sides} \\ \text{angles} \\ \text{[entrance]} \end{array} \right\}$

The brackets mark the optional element of a region. The component elements in (14) help to delimit the range of the elaborations.

3.2 Metonymic models of *nei4* and *wai4*

A region may be depicted by an entity which covers the whole area such as *guo2* 國 ‘country’ and *xiao4* 校 ‘school’ and so on. It may be described by its area, the total coverage of the region. If the entity is in a square shape and the exact side length is known, then one may use an expression like ‘its area is 100 m²’ or ‘it is 25 cm²π’ when it is a circle. Here are two simple arithmetic formulas: the area of a square is the square of the length of its side, and the area of a circle equals to the square of its radius multiplied by π. Therefore, it is possible for boundaries and sides to stand for regions:

15. Metonymic models of *nei4* and *wai4*

$$\text{Region: area} \left\{ \begin{array}{l} \circ = (\frac{1}{2}\text{diameter}=\text{radius})^2 \times \pi \\ \square = (\text{the length of a side})^2 \end{array} \right\} \Leftrightarrow \left\{ \begin{array}{l} \text{radius} \\ \text{side length} \end{array} \right\} \Leftrightarrow \left\{ \begin{array}{l} \text{boundary} \\ \text{side} \end{array} \right\}$$

Further more, since the radius and side length denote not only an area but also a length from a center to a boarder or an end of a line to the other end of the line, and hence there is an area-distance transfer as shown in (16):

16. Metonymic models of 內 and 外 and the denotation

$$\text{Region: area} \left\{ \begin{array}{l} \circ = (\frac{1}{2}\text{diameter}=\text{radius})^2 \times \pi \\ \square = (\text{the length of a side})^2 \end{array} \right\} \Leftrightarrow \left\{ \begin{array}{l} \text{radius} \\ \text{side length} \end{array} \right\} \Leftrightarrow \left\{ \begin{array}{l} \text{boundary} \\ \text{side} \end{array} \right\} \Leftrightarrow \text{distance}$$

Sentences in (17a) and (17b) prove this metonymic transfer:

17a. *Fan1yuan2 bai3 li3 zhi1 nei4 wu2 ren2yan1* 方圓百里之內無人煙

‘There are no people within the area of 100 miles.’

b. *Yi4 bai3 gong1li3 yi3nei4 dou1 mei2you3 ren2* 一百公里以內都沒有人。

‘There are no people in 100 km.’

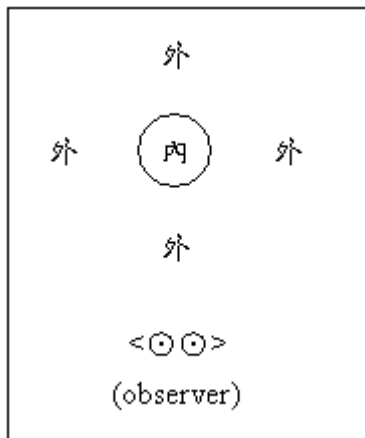
(17b) is more colloquial than (17a), in which *fan1yuan2* 方圓 ‘square and circle/area’ marks *bai3 li3* 百里 ‘100 miles’ a radius or the length of a side. There is no area marker in (17b), and hence *yi4 bai3 gong1li3* 一百公里 ‘100 km’ is interpreted as an area from the area-distance transfer.

3.3 Perspective and embodiment

The above ICM can account for most of cases in (1a), and the metonymic models provide us a better understanding of (1d). However, *nei4* and *wai4* do allow different

perspective and embodiment. When the area is viewed with a neutral perspective, both the inside and outside of the region are transparent as illustrated in (18a) below:

18a.



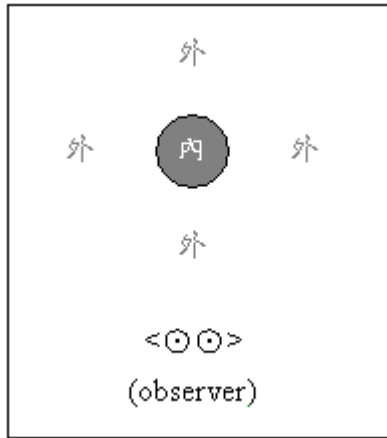
In (18a), the observer takes an objective view of the region and both *nei4* and *wai4* are of the same transparency. Consequently, *nei4* and *wai4* are symmetric as in (1a)-(1d): *guo2nei4* 國內 ‘inside the country; domestic’/*guo2wai4* 國外 ‘outside the country; abroad’; *nei4meng2* 內蒙 ‘Inner Mongolia’/*wai4meng2* 外蒙 ‘Outer Mongolia’; *nei4xiao1* 內銷 ‘sell domestically’/*wai4xiao1* 外銷 ‘export’, etc.

In addition, there is also a common metaphor, BODY IS CONTAINER, in cases of (18a). A body is conceptualized as having an inside, an outside and a surface. Lexicons construed in this way include *nei4ke1* 內科 ‘internal medicine’/*wai4ke1* 外科 ‘surgery’, *nei4shang1* 內傷 ‘internal injury’/*wai4shang1* 外傷 ‘external injury, trauma’, *nei4yi1* 內衣 ‘underwear’/*wai4yi1* 外衣 ‘outer garment(s)’, and *nei4fu2* 內服 ‘for internal use’/*wai4yong4* 外用 ‘for external use’.⁴ *Nei4* is conceptualized as inside the body (e.g. *nei4shang1* 內傷 ‘internal injury’), closer to the body (e.g. *nei4yi1* 內衣 ‘underwear’), inward direction (e.g. *nei4fu2* 內服 ‘to take (medicine)’), as well as being forced by physical needs (e.g. *nei4ji2* 內急 ‘hurry to the toilet (internal needs)’ and *nei4jiu4* 內疚 ‘feel guilty’). *Wai4* also has similar converse senses. However, since *need* and *guilty* are conceptualized as driven by internal force, they do not collocate with *wai4*.

It is important to remember that human perception identifies a region by its contour, and such perception is also reflected in the linguistic description of shapes. Hence when we define a region in an ICM for IN and OUT, it is the description of the contour that is critical. And the description of a contour allows the possibility of the observers being internal to the contour or outside of the contour. However, when the region has an embodiment of a container, then the transparency is dependent on the perspective of the observer. In this case, what is contained in the container cannot be perceived from outside as shown in (18b) below.

⁴ In addition to *nei4fu2* 內服 ‘for internal use’/*wai4yong4* 外用 ‘for external use’, (18a) can be applied to other parallel expressions such as *wai4biao3* 外表 ‘appearance, surface, outside’/*nei4zai4* 內在 ‘internal, inside’, and *nei4zang4* 內臟 ‘internal organs’/*wai4bu4qi4guan1* 外部器官 ‘internal organs’, where *nei4* and *wai4* are followed by different morphemes within the same semantic domain. For example, both *fu2* 服 ‘to eat, to take’ and *yong4* 用 ‘to use, to apply’ are different ways for medical cure, *zai4* 在 ‘to be located’ and *biao3* 表 ‘to appear, to show, surface’ can both denote the position of a Theme, and *zang4* 臟 ‘internal organ(s)’ is a hyponym of *qi4guan1* 器官 ‘organ’.

18b.

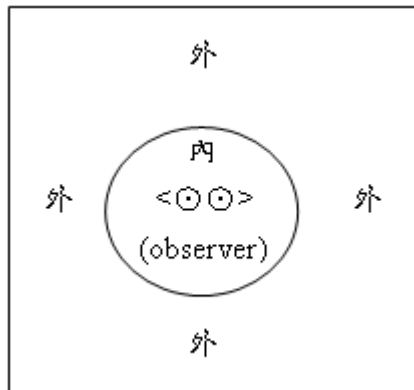


This perspective gives *nei4* a privileged status and hence the only member allowed in compound formation, such as in *nei4mu4* 內幕 (*xiao1xi2* 消息) ‘inside (news)’, *nei4ding4* 內定 (*ren2xuan3* 人選) ‘tapped (candidate)’ etc. In each case, the region defined is an exclusive container and hence the contained is the only salient concept to be lexicalized. It is important to note that in this case the concept of container is the most important, while the position of the observer is not. This is why *nei4mu4* (*xiao1xi2*) ‘inside (news)’ can be used by both a speaker who knows the

information and a speaker who is seeking the information. This applies similarly to *nei4xin1* 內心 ‘in the heart’, which refers crucially to heart as a container of emotion as in *nei4xin1 hen3 gao1xing4* 內心很高興 ‘glad at heart’, but does not refer to whose emotion.

Last, and perhaps the unmarked, case of ICM for IN/OUT does involve the location of the observer. The only possible position in this explicit observer model is that the observer is inside the region as in the following (19):

19.



In this model, the crucial concept is that the area defines the identities of the speaker. In this sense, there is no more need to refer to what is, but only to what IS NOT. In this case, then the salient concepts are the ones that do not belong to the speaker. Hence, for this conceptualization, it is *wai4* ‘out/outside’ that is asymmetrically lexicalized. It is important to note that this scheme does produce the most number of lexicalization.

Besides, from human experiences, a nearer object is more controllable than a further one; one may get more familiar with it, and regard it as formal or take it for granted and consider it as legal. On the other hand, objects which leave one far are more uncontrollable, and one usually is not as familiar with them as those near ones. Far objects turn out to be unfamiliar, new (e.g. *wai4guo2* 外國 ‘foreign country’, *wai4bi4* 外幣 ‘foreign currency’, *wai4lai2yu3* 外來語 ‘foreign language’, *wai4xiao4* 外校 ‘other schools, not the referring one’, *wai4zu2* 外

族 ‘other tribes, not the referring one; people not of the same clan’, *wai4ren2* 外人 ‘outsider(s)’, *pai2wai4* 排外 ‘exclude foreigners; xenophobia’, *mei4wai4* 媚外 ‘to fawn on foreign powers’, *jian4wai4* 見外 ‘be considered as an outsider’), unexpected, special (e.g. *yi4wai4* 意外 ‘accident’, *li4wai4* 例外 ‘exception’, *ge2wai4* 格外 ‘especially’, extra (e.g. *wai4kuai4* 外快 ‘extra income’)⁵, or informal (e.g. *wai4hao4* 外號 ‘nickname(s), *wai4shi3* 外史 ‘an unofficial history’), abnormal (e.g. *fa3wai4* 法外 ‘beyond the law’ (*shi1en1* 施恩 ‘to bestow favor’)) and illegal (e.g. *wai4yu4* 外遇 ‘extramarital affairs’, *hun1wai4qing2* 婚外情 ‘extramarital liaison’).

4. Social backgrounds

Chinese society is a paternal society contrary to maternal societies such as Amis and Siraya societies, where husbands move to live with their wives and fathers and mothers in law. Chinese society is husband or father centered. This hierarchy and relationship project to lexicons.

Since husbands have power over wives, they are free to call their wives as *jian4nei4* 賤內 ‘my humble wife’ while wives are not allowed to name their husbands as . * *jian4wai4* 賤外 ‘my humble husband’. Maternal relatives are more remote than paternal relatives because, usually, people do not live with maternal relatives but paternal relatives. This makes paternal relatives bear a shorter distance and closer relation and hence are more familiar with children and the family, and also makes maternal relation marked: maternal relatives are *wai4qi1* 外戚 ‘outside relatives’, mother’s mother is *wai4po2* 外婆 ‘outside grandmother’, and mother’s father is *wai4gong1* 外公 ‘outside grandfather’ literally.

5. Other factors and future study

Nowadays *nei4zi3* 內子 ‘my wife (inside person)’ and *wai4zi3* 外子 ‘my husband (outside person)’ seem to be symmetric.⁶ However, *nei4ren2* 內人 ‘my wife’ and *wai4ren2* 外人 ‘outsider’ are asymmetric. The fact that *wai4ren2* 外人 ‘outsider’ is not comprehended as ‘my husband’ nor does *nei4ren2* 內人 ‘my wife’ refer to ‘insider’ may be under influence of the blocking effect.

In *Chou Li* 周禮 (the ritual of the Zhou dynasty, written in about 770 B.C.-403 B.C.), *nei4ren2* 內人 is a name for waitresses in the palace, and *wai4ren2* 外人 can be observed to

⁵ *Yuan2wai4* 員外, an old name for ‘a rich person’ usually used as a vocative, comes from an official name which means ‘an extra official, not a regular formal official’ during Jin dynasty (265 A.D.-420 A.D.) and Qing dynasty (1644 A.D.-1912 A.D.).

⁶ They may not be symmetric in Song dynasty (960-1279 A.D.) when *wai4zi3* 外子 is a son born outside.

have the meaning of outside people in *Mencius* 孟子 (about 385 B.C.-304 B.C.). In other words, the original conceptualization is symmetric based on the area defined by the palace. At that time, it is quite natural for an empire to name females inside his court as *nei4ren2* 內人 and people outside as *wai4ren2* 外人. Hence it may be symmetric to the king at that stage. Later, when *nei4ren2* 內人 shifts to refer to ‘wife, concubine (a woman who has marital relation with a man)’ in *Li Chi* 禮記 (The book of rites), it cannot have *wai4ren2* 外人 as its counterpart ‘husband’ because *wai4ren2* 外人 already has the meaning of outsider.⁷

In addition, the asymmetric phenomenon shown in (2e) did not appear in *Jing Hua Yuan* 鏡花緣, in Qing dynasty ((1644 A.D.-1912 A.D.):

20a. *fan2 shi4bi4 nian2 er4shi2 yi3wai4 shang4wei4 hun1pei4 zhe3,*
 凡 侍婢 年 二十 以外 尚未 婚配 者，
 all waitress year twenty over not yet married person
 ‘waitresses who are over twenty years old and not yet married,’

ling4 qi2 fu4mu3 ling3hui2, wei4 zhi1 hun1pei4
 令 其 父母 領回，為 之 婚配
 order their parents get back, for them marry
 ‘make their parents fetch them back and arrange marriage for them’

(*Jing Hua Yuan* 鏡花緣, chap.44:160)

b. *fan2 xiao3er2 wu2lun4 nan2 nü3, san1 sui4 yi3nei4, yong4 chuan1lian4zi3 jiu3 ge5*
 凡 小兒 無論 男女，三歲 以內，用 川練子 九個
 all children no matter boy girl, three years old within, use Chuanlianzi-medicine nine unit
 ‘all the children, no matter boys or girls, take nine *Chuanlianzi* if they are younger than three’

(*Jing Hua Yuan* 鏡花緣, chap.55: 223)

As shown in (20a) and (20b) above, both *nei4* and *wai4* can serve as the line of demarcation between a numeral range and the rest; *nei4* marks the maximum limit and *wai4* the minimum limit of the range. In modern Chinese, *yi3wai4* is not used in non-spatial domain when preceded by a numeral phrase. *Yi3shang4* 以上 serves as a counterpart of *yi3nei4* in this

⁷ In *Li Chi* 禮記 (The book of rites) both *nei4ren2* 內人 and *nei4zi3* 內子 carry the meaning of *wife*, but *nei4ren2* 內人 ‘wife’ is a hypernym of *nei4zi3* 內子 which refers to the formal wife of a senior official. Later, *nei4zi3* 內子 can have the meaning of *your wife* in *Yan Zi Chun Qiu* 晏子春秋 (about 200 B.C.) and *my wife* in Tang dynasty (618 A.D.-907 A.D.).

respect. Detailed accounts for the asymmetric phenomenon of modern *nei4* and *wai4* in non-spatial domain still await further study in historical language change.

6. Conclusions

In this paper, we used ICM to account for the grammatical distribution as well as lexicalization and meaning extension of *nei4/wai4* IN/OUT in Mandarin Chinese. They both express spatial, referential and social relations, but when preceded by numerals only *nei4* denotes temporal and the other non-spatial relation. We also show how human conceptualization is reflected linguistically and how conceptualization underlines and predicts linguistic representations.

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