# From Near-synonyms to Divergent Viewpoint Foci:

# A Corpus-based MARVS driven account of two verbs of attention

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## Abstract

This study attempted to construct the semantic representation of the two near-synonyms of attention, *zhu4yi4* and *zhuan1xin1*, based on MARVS theory. Since cross-strait semantic comparison has been an important topic in lexical semantic research, we also provided a fine-grained comparison of their eventive meanings as well as their usage variations between Mainland and Taiwan. The linguistic patterns were extracted from the one billion-word GigaWord Corpus (2.0) under the interface of the Chinese Word Sketch Engine. We found that *zhu4yi4* and *zhuan1xin1* differ crucially in the viewpoint focus of the verbal aspect, with *zhuan1xin1* focusing on the process while *zhu4yi4* focusing on the resultant endpoint. The contrasts can be represented with both event structure and role internal attributes, as supported by different distributional patterns from the corpus. Besides, by shifting viewpoint perspective, we accounted for the salient pattern of '*zhu4yi4* + gained-end' in the corpus, which is, comparing with the gain of potential loss, people find it more difficult to deal with the loss of current gain.

## 1 Introduction

The study of near-synonyms has been a very important area in Chinese lexical semantics. It has been argued that the lexical semantic features can determine the syntactic behaviors of verbs (Huang et al., 2000). In this regard, the examination of syntactic difference could be an effective way to distinguish the lexical conceptual profile and role of near-synonyms, which differ from each other only in limited contexts. Since syntactic differences could not be observed by pure intuition, the adoption of corpus data and relevant query tool has been proved by a series of study as a promising way to probe into the relation between syntax and semantics in Chinese (Huang et al., 2000; Huang and Chung, 2008; Huang et al., 2008).

We attempted to give an in-depth examination of the near-synonym pair, i.e. *zhuan1xin1* and *zhu4yi4* by extracting collocational patterns from the Giga-Word Corpus (2nd version) under the interface of Chinese Word Sketch Engine (CWS). A thorough comparison of the semantic representation of *zhuan1xin1* and *zhu4yi4* by far have been rarely touched on. Based on the sense inventory of Chinese WordNet (CWN), two senses were identified for *zhu4yi4*: 1. Concentrate one's will (serve as a transitive verb or noun); 2. Observation with great focus (only serves as a noun). However, no adequate data were found for the sense of *zhuan1xin1*. A further check in the Contemporary Chinese Dictionary (6th edition) reveals that *zhuan1xin1* means concentrating one's attention in order to focus. These limited dictionary explanations tend to suggest that they are near-synonyms, but still far from adequate to explain their distribution pattern in actual usage. In fact, *zhu4yi4* and *zhuan1xin1* are not at all interchangeable in many contexts. For example, one would say *zhu4yi4fang2shai4* 'pay attention to protecting from the sun' but not *zhuan1xin1fang2shai4* 'focus on protecting from the sun'; similarly, it would be more acceptable for *zhuan1xin1shang4ke4* 'be focused while having class' instead of *zhu4yi4shang4ke4* 'pay attention while having class'. Therefore, a thorough sketch of their usages is important and also necessary to prove into their conceptualization in our mind.

We adopted the Module-Attribute Representation of Verbal Semantics Theory (MARVS) proposed by

Huang et al. (2000) to examine the verbal conceptual structure of *zhuan1xin1* and *zhu4yi4*, and tried to analyze their aspectual viewpoint focus from the perspective of viewpoint aspect theory.

Since cross-strait communication has been a trend, lexical contrast between these two speech communities has drawn much focus recently. A fine-grained comparison of the semantic information of *zhu4yi4* and *zhuan1xin1* between Taiwan and Mainland was also conducted to make contributions to the growing body of cross-strait lexical contrast (Wang and Huang, 2018; Hong and Huang, 2008; Huang, Chung and Su, 2008). Therefore, the main analysis of this paper would be drawn upon two layers: one is from the comparison of semantic representations of *zhu4yi4* and *zhuan1xin1*, and the other is from the cross-strait lexical contrast of these two verbs of attention.

## 2 Research Questions

This paper attempts to investigate below research questions:
1. How is *zhu4yi4* different (and in common with) from *zhuan1xin1* in their actual usages between Mainland and Taiwan?
2. How do these collocation and distribution patterns construct the semantic representation of both *zhu4yi4* and *zhuan1xin1* based on MARVS theory?

## 3 Theoretical Framework

The semantic representation of *zhu4yi4* and *zhuan1xin1* was constructed based on the theory of MARVS (Huang et al., 2000), which is a practical approach for verbal semantics construction through examining the grammatical behaviors of the verbs. MARVS has high integration with various topics in lexical semantics. The study of Hong et al. (2008) explored the semantic meaning of two ingestion verbs (*chi1* and *he1*) from the perspective of MARVS and demonstrated the advantage of event-internal and role-internal attributes in predicting the event type coercion. A much recent study from Wang and Huang (2018) adopted the MARVS theory and Holliday's SFL (especially tenor and modality) to analyze the stance difference encoded in the near-synonym pairs "*mian3li4*" and "*gu3li4*", indicating that MARVS cannot only predict the

grammatical behaviors of the verbs but also represent their cultural norms behind.

The building blocks of MARVS include event module and role module, with internal attributes attached to both. In terms of event module, there are five atomic structures, namely boundary (•), punctuality(/), process(///), state(____), and stage(^^^). A more detailed explaining of the relationship between each structure is illustrated below (Huang et al., 2000, p. 24).
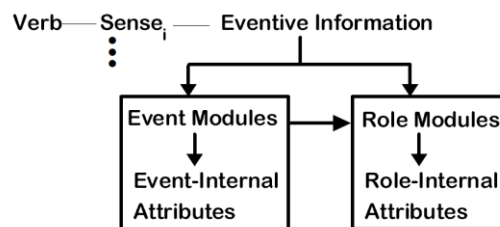


Figure1. Module-Attribute Representation

The internal attributes are the detailed semantic description of the event, such as [control], [effect]. They are properties of the event and are usually supported by linguistic clues of actual usage (Huang and Hsieh, 2015). The role module, on the other hand, is the focused role of the event and its internal attributes refer to the detailed semantic description of the role in which the event is involved, such as [sentience], [volition], etc.

MARVS design follows Smith's theory of viewpoint aspect and situation aspect (Smith, 1994, 2013), which are two independent aspectual components for sentence interpretation. Just as Smith explained (2013), "aspectual viewpoints function like the lens of camera, making objects visible to the receiver. Situations are the objects on which the viewpoint lenses are trained" (p.91), situation aspect encodes the inherent feature of the sentence (or verb), while viewpoint aspect reflects the perspective of a speaker that can affect the interpretation of parts of or all situation types. The viewpoint inventory mainly includes imperfective and perfective viewpoints even though Smith (1994) argued for a neutral viewpoint in Mandarin, which is more flexible than imperfective and "includes the initial point and at least one stage of a situation" (p.110). Imperfective viewpoints focus on the intervals of an event that exclude endpoints, while perfective viewpoints consider an event as a completed whole with both endpoints. The situation types are mostly determined by its nature, while the lens of viewpoint

camera could offer different perspective in their interpretation of the situation type. Therefore, it should be intriguing to analyse the viewpoint focus of *zhu4yi4* and *zhuan1xin1*, on the basis of their semantic structure from MARVS.

## 4    Methodology

The investigation of verb usage should not be based on intuition but actual language data. The availability of large corpus can provide a unique opportunity to look into language patterns that may otherwise be neglected. We investigated the actual usages of *zhu4yi4* and *zhuan1xin1* based on the sub-corpus (i.e. CNA corpus and XIN corpus) from GigaWord corpus (version 2.0) under the Chinese Word Sketch Engine (CWS) interface (Huang et al., 2005; Kilgarriff et al., 2005; Hong and Huang, 2006). The GigaWord Corpus contains documents from three different sub-corpus, including CNA (Central News Agency with 792,195,000 characters), XIN (Xinhua News Agency with 471,110,000 characters), and ZBN (Lianhe Zaobao with 28,066,000 characters), with more than one billion Chinese characters. All data in the corpus were automatically tagged with partially manual checking. The precision accurate is found to be more than 96.5% (Ma and Huang, 2006). The Sketch Engine is "a novel Corpus Query System incorporating word sketches, grammatical relations, and a distributional thesaurus" (Hong et al., 2008, p. 60), which demonstrates great advantages in analyzing the collocations of the keyword into different grammatical relations.

The main functions applied for analysis include Word Sketch Difference, Word Sketch, collocation, and concordance. For the sketch difference results of *zhu4yi4* and *zhuan1xin1*, the minimum frequency was set at two since this number can yield comparable results. In terms of the word sketch results of *zhu4yi4* and *zhuan1xin1*, the minimum frequency was both set at three for easy comparison.

## 5    Analysis and Result

Table 1 below demonstrates the raw frequency and standard frequency (per 100 million) of *zhu4yi4* and *zhuan1xin1* in both CNA and XIN corpus. It is found that *zhu4yi4* is in much higher use than *zhuan1xin1* across two corpora, suggesting that *zhuan1xin1* may be applied in a wider context than *zhu4yi4*. Also, the instance of *zhuan1xin1* and

*zhu4yi4* is continually higher in CNA corpus than that of XIN corpus.

To further examine the grammatical behavior of both terms in each sub-corpus, the Word Sketch Difference function was applied. The results indicate that in Taiwan, the subject of *zhuan1xin1* is usually *xue2sheng1* 'students' and *hai2zi3* 'children' while in the mainland, there is no salient subject pattern, even though the result suggest that *shi4* 'thing' is the subject. For *zhu4yi4*, seven of its top ten collocated subjects were strikingly found to be proper nouns related to place in XIN corpus; while in CNA corpus, the subjects of zhu4yi4 are usually different social roles, such as *jia4shi3ren2* 'driver', *xiao1fei4zhe3* 'consumer', *tou2zi1zhe3* 'investor' etc (see table 2). This distribution contrast may indicate that city (and county) in China mainland is seen as an entity with the symbolic meaning of its people, and collectivity always goes before the individual in the action of paying attention; while in Taiwan, it is the opposite since few places were found to be the subject of *zhu4yi4*.

Besides, only the subjects of *zhu4yi4* (not *zhuan1xin1*) could be common people in general, such as *min2zhong4* 'people' and *guo2ren2* 'countrymen'. This is intriguing since everybody can pay attention to the same object but it would be difficult (and unnecessary) to make everyone focus on one single thing continually. This observation could provide preliminary evidence that *zhu4yi4* is an instantaneous event, the 'action' of which can be completed almost instantly while *zhuan1xin1* is continuous, requiring investment of time and efforts. In this sense, the event structure of *zhu4yi4* tends to be punctuality while *zhuan1xin1* is state. This can be further tested by the Chinese perfective morpheme '*le3*'. The corpus reveals substantial usage of '*zhu4yi4 le3*' 'pay attention+ perfective aspect' but zero instance for '*zhuan1xin1 le3*' 'be concentrated + perfective aspect'. Since '*le3*' represents "closed and non-stative situation", and can reflect a viewpoint on a focal point of an instantaneous event or the whole process of durative event (Smith, 1994, p. 111), the incompatibility of *zhuan1xin1* and '*le3*' indicate that *zhuan1xin1* denotes meaning of continual state rather than process.

In both sub-corpora, the top three nouns modified by *zhu4yi4* include *jiao1dian3* 'focal point', *shi4xiang4* 'item', *xian4xiang4* 'phenomenon' (in CNA) and *shi4xiang4* 'item', *wen4ti2* 'problem', *jiao1dian3* 'focal point' (in XIN), suggesting that

*zhu4yi4* is directional, usually with an exact point on which the attention is fixed. Even though in some cases where *zhu4yi4* is directly followed by verbs such as *fang2fan4* 'prevent', *fang2zhi3* 'prevent', *chu4li3* 'deal with', there is always an implicit target of prevention or attention.

To further examine the object pattern following the two verbs of attention, collocation analysis and word sketch function was applied to *zhuan1xin1* and *zhu4yi4* respectively. When taking the verbs (vv) and nouns (N) listed in table 3&4, we observed a crucial contrast between *zhu4yi4* and *zhuan1xin1* when taking an imperfective viewpoint over sentences by the typical progressive *zai4*. That is, when given the sentences containing the structure of "x zhuan1xin1 vv" (a) and ask the question of "what is x doing". The answer is most likely to be "x zai4 vv" but not "x zai4 zhuan1xin1". On the contrary, when we take the typical verbal compliment of *zhu4yi1* into a similar sentence structure "x zhu4yi4 vv/n" (d) and ask the same question, the answer would most likely be "x zai4 zhu4yi1 (vv)/(N)" but not "x zai4 vv".

zhuan1xin1
    a) Sentence: x zhuan1xin1 vv (table 3)
      'sb. focuses vv'
    b) Question: x zai4 zuo4 shen3me3
      'What is x doing'
    c) Answer: x zai4 vv
      'sb. is vv-ing'

zhu4yi4
    d) Sentence: x zhu4yi4 vv/n (table 4)
      'sb. pay attention to vv/n'
    e) Question: x zai4 zuo4 shen3me3
      'What is x doing'
    f) Answer: x zai4 zhu4yi4
      'sb. is paying attention to vv/n'

This interesting syntactic contrast corroborates the argument above that *zhu4yi4* is like a higher verb with focus on endpoint and outcome; while *zhuan1xin1* focuses more on the process and therefore becomes a manner of the main event represented by vv. And this line of difference in viewpoint focus of verbal aspect can better explain why *zhu4yi4* usually takes a nominal object (common noun and deverbal noun) and *zhuan1xin1* does not take bona fide nouns as objects (examples can be found in table 3&4)

Turning to the aspect of cross-strait comparison, we found that the top object collocated with *zhuan1xin1* is *xiang4xue4* 'towards study' (with freq.=29 and MI=13.113) in Taiwan, and *ting1jiang3* 'listen (to lecture)' (with freq.=11 and MI=14.875) in China mainland, both of which are related to the context of study and school (table 4). Other collocations in the XIN corpus involve ball games, reading and writing, etc., all of which are durative activities that require sustaining efforts and attention. By comparison, the "object" of *zhuan1xin1* in CNA corpus are extended to various social domains, such as *yang3bing4* 'recuperate', *fu1dan4* 'to hatch (eggs)', *cong2shang1* 'do business', indicating that *zhuan1xin1* is more widely used in Taiwan.

Next, the Word Sketch function was applied to further analyze the collocation of *zhu4yi4* and *zhuan1xin1* in different grammatical relations. One interesting observation on *zhu4yi4* is the use of quantifiers such as "sometimes" "often". As indicated by table 4, *zhu4yi4* is often modified by *duo1jia1* 'add; more', *sui2shi2* 'anytime', and *shi2shi2* 'often', which barely appear in front of *zhuan1xin1*. This collocation distribution may indicate the difficulty of *zhuan1xin1* to be quantified because it is seldom repeated. *Zhu4yi4*, however, can be reflected as the trajectory of attention from one point to the target and this path of attention can be concretized and therefore be "calculated". Similarly, *shi2shi2* is a frequency adverb to measure how often an event happened, the modified event of which should be quantified in our mind. Therefore, it would not be too bold to argue that *zhuan1xin1* may be a concept that is difficult to concretize and quantify in our minds.

Among the top ten modifiers of *zhu4yi4* in each corpus (see table 5), we observed that *zhu4yi4* is more often used in the manner of suggesting in Taiwan, with evidence from the collocation of *ying1* 'should'(MI=72.58), *yi2* 'had better' (MI= 47.91), *ying1gai1* 'should' (MI=46.0). Comparatively in the mainland, *zhu4yi4* tends to be an act of making a command. Evidence can be found from the salient collocation with *yao4* 'need to'(MI=64.93) *shi3zhong1* 'always' (MI=41.95) and *bi4xu1* 'must' (MI=34.14), etc.

| | CNA | | XIN | |
|---|---|---|---|---|
| | **Total** | **Per 100 million words** | **Total** | **Per 100 million words** |
| zhu4yi4 | 113,273 | 22589 | 21,616 | 6936 |
| zhuan1xin1 | 3,143 | 627 | 516 | 166 |

Table 1. Frequency of *zhu4yi4* and *zhuan1xin1* in CNA and XIN corpus

| CNA | | | XIN | | |
|---|---|---|---|---|---|
| **Subject** | **Freq.** | **MI** | **Subject** | **Freq.** | **MI** |
| 船隻 | 2349 | 95.4 | 北京市 | 12 | 18.0 |
| 民眾 | 470 | 35.5 | 恭城縣 | 2 | 16.1 |
| 駕駛人 | 50 | 30.9 | 大關村 | 2 | 15.6 |
| 考生 | 54 | 25.8 | 人們 | 9 | 14.5 |
| 公平會 | 31 | 25.6 | 威海市 | 3 | 14.0 |
| 家長 | 53 | 24.3 | 昌樂縣 | 2 | 13.7 |
| 消費者 | 51 | 20.4 | 齊齊哈爾市 | 3 | 13.7 |
| 投資人 | 34 | 20.3 | 他們 | 13 | 13.2 |
| 世人 | 11 | 16.5 | 我們 | 10 | 12.9 |
| 國人 | 24 | 16.0 | 吉安市 | 2 | 12.9 |

Table 2. Comparison of Top Ten Subjects of *zhu4yi4* in CNA and XIN Corpus

| CNA | | | XIN | | |
|---|---|---|---|---|---|
| **N+1 collocation** | **Freq.** | **MI** | **N+1 collocation** | **Freq.** | **MI** |
| 向學 | 29 | 13.113 | 聽講 | 11 | 14.875 |
| 養傷 | 6 | 12.586 | 練球 | 3 | 12.909 |
| 聽課 | 3 | 12.408 | 翻閱 | 3 | 11.636 |
| 養病 | 12 | 12.169 | 打球 | 6 | 10.425 |
| 待產 | 9 | 12.027 | 鑽研 | 5 | 10.371 |

Table 3. Comparison of Top Five Collocations of *zhuan1xin1* in CNA and XIN Corpus

| CNA | | | XIN | | |
|---|---|---|---|---|---|
| **Object** | **Freq.** | **MI** | **Object** | **Freq.** | **MI** |
| 事項 | 2814 | 74.84 | 事項 | 280 | 57.15 |
| 自身 | 540 | 57.63 | 今發 | 68 | 56.41 |
| 動態 | 626 | 53.34 | 交通安全 | 41 | 31.37 |
| 動向 | 373 | 46.19 | 今 | 65 | 30.51 |
| 飲食 | 341 | 45.65 | 飲食 | 54 | 26.76 |
| 環境衛生 | 170 | 44.22 | 身體 | 67 | 26.76 |
| 情勢 | 781 | 42.54 | 衛生 | 135 | 25.5 |
| 變化 | 550 | 41.64 | 微調 | 10 | 24.81 |

| 衛生 | 736 | 38.71 | 變化 | 119 | 24.8 |
| 交通安全 | 130 | 37.11 | 分寸 | 7 | 23.6 |

Table 4. Comparison of Top Ten Objects of *zhu4yi4* in CNA and XIN Corpus (word sketch)

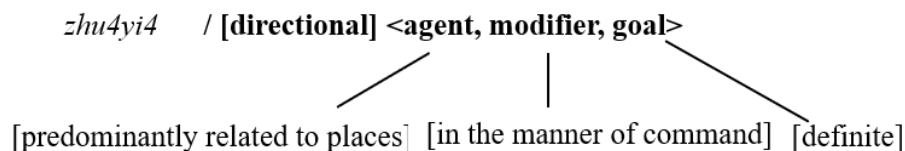| CNA | | | XIN | | |
|---|---|---|---|---|---|
| **Modifier** | **Freq.** | **MI** | **Modifier** | **Freq.** | **MI** |
| 應 | 6508 | 72.58 | 要 | 3153 | 64.98 |
| 隨時 | 1418 | 71.43 | 十分 | 584 | 57.84 |
| 多加 | 745 | 70.16 | 應 | 521 | 49.92 |
| 要 | 4622 | 60.49 | 還要 | 190 | 43.79 |
| 多 | 1171 | 52.47 | 始終 | 174 | 41.95 |
| 格外 | 165 | 49.51 | 更加 | 93 | 36.45 |
| 宜 | 236 | 47.91 | 並 | 314 | 35.44 |
| 應該 | 724 | 46 | 必須 | 204 | 34.14 |
| 須 | 555 | 45.62 | 還 | 526 | 32.90 |
| 必須 | 989 | 44.4 | 應該 | 117 | 32.63 |

Table 5. Comparison of Top Ten Modifiers of *zhu4yi4* in CNA and XIN Corpus

Another salient usage of *zhu4yi4* lies in its collocation with *qing3* 'please'. It is found that '*qing3 zhu4yi4*' occurs 2,0113 times in the whole Giga-Word corpus, accounting for over 14.7% of the total instances of *zhu4yi4*; while '*qing3 zhuan1xin1*' does not show up alone in the corpus. Two instances of '*qing3 zhuan1xin1*' were found, but both followed either by '*da3 lao2hu3*' 'heat the tiger' or *chi1* 'eat'. It was noticed that, in both XIN and CNA corpus, *qing3* is the top collocation of *zhu4yi4* under the grammatical relationship of "SentObject", indicating that *zhu4yi4* is an instantaneous event with

bounded start and endpoint, so it can be completed soon upon command; while *zhuan1xin1* represents a continual status of focusing, whose endpoint is not easy to be foreseen, and therefore more difficult to be executed. The salient collocation of '*kai1shi3*' 'begin' with zhu4yi4 (with freq. =260, MI=24.32 in CNA corpus and freq.=99, MI=30.14 in XIN corpus) can also corroborate this argument.
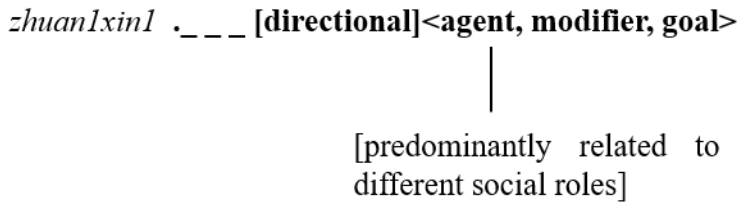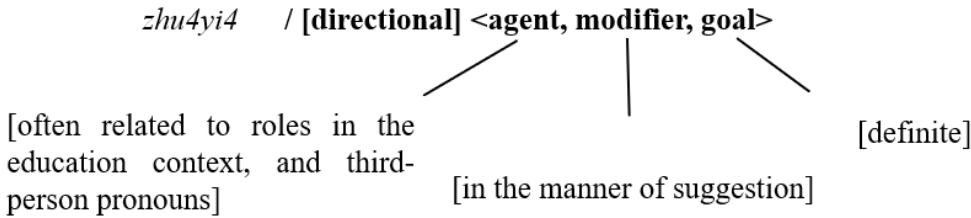
Based on the discussion and analysis above, the tentative MARVS representation of *zhuan1xin1* and *zhu4yi4* both in Taiwan and Mainland can be constructed as follows:

**In Mainland:**

*zhu4yi4* / **[directional]** **<agent, modifier, goal>**

[predominantly related to places] [in the manner of command] [definite]

*zhuan1xin1* .___ **[directional]<agent, modifier, goal>**

**In Taiwan:**

*zhu4yi4* / [directional] <agent, modifier, goal>

[often related to roles in the education context, and third-person pronouns]

[in the manner of suggestion]

[definite]

*zhuan1xin1* .\_ \_ \_ [directional]<agent, modifier, goal>

[predominantly related to different social roles]

Based on the representation structure above, we found that *zhu4yi4* and *zhuan1xin1* have crucial contrast in their event structure and role internal attributes and share different distributional patterns across the corpus. In terms of event structure, *zhu4yi4* is represented more as a "punctuality" with clear direction and boundary (start and end), which could be quantified in our mind. By comparison, *zhuan1xin1* reflects a verbal status lasting continually through a time span without clear boundary. Even though there may be directionality in *zhuan1xin1*, as reflected in *'zhuan1xin1 xiang4xue2'* 'focus on (towards) study', it is not meant to fixed attention on specific points of the event but rather, maintain the status of being focused, and project attentions evenly across the target event. This feature could be reflected by taking different viewpoints on the attention target, that is, *zhu4yi4* sheds focus more on the result and endpoint while *zhuan1xin1* on the process.

In the dimension of cross-strait contrast, both terms are found to be different in the role internal attributes. More specifically, *zhu4yi4* is often used in the manner of command (*yao4* and *bi4xu1*) in the mainland, whose subjects are predominantly proper nouns of place (city and county). In Taiwan, on the other hand, *zhu4yi4* tends to be used as a suggestion and reminder (*ying1* and *yi2*), the subject of which reflects individuals in different social roles.

## 6 More Discussion

As analyzed in previous section, the eventual focus of *zhu4yi4* is usually on the endpoint (i.e. taking the outcome as the object), which allows it to have a meaning extension that is interestingly similar to the English 'risk' (Fillmore and Atkins, 1992). That is, the object of *zhu4yi4* consists of either a potential gain or potential loss, which are also two essential components making up the risk frame (or cognitive structure). And it is the speaker's choice to have different interpretation of gain or loss from the object. For instance, *zhu4yi4 ti3zhong4* 'pay attention to weight', the object of *ti3zhong4* could be a potential gain if the speaker wants to put on weight; while it can also be a potential loss if the speaker is over-weighted somehow. Other examples include *zhu4yi4 yin3shi2* 'pay attention to diet', *zhu4yi4 xing2ren2* 'pay attention to pedestrians', *zhu4yi4 jing3cha2* 'pay attention to police' etc.

However, we observed that when *zhu4yi4* is collocated with dangerous events (such as *yong4dian4* 'use electricity', *yong4huo3* 'use fire'), the endpoint is unexpectedly on the potential gain rather than loss (at least literately). For example, people would prefer the expression of *zhu4yi4 yong4dian4 an1quan2* 'be careful when using electricity' instead of '*zhu4yi4 yong4dian4 wei1xian3*' 'be aware of the danger'. A further search in Google revealed 244,000 hits for the former, while only 9 hits for the

latter. This is interesting, since we all know that it is the hidden danger that we should really focus on. The question is whether *an1quan2* 'safety' really depicts a gained outcome from the speaker's perspective. By interpreting *zhu4yi4 an1quan2*, one is clear that s/he would loss the current safety if s/he doesn't pay enough attention to the event. In this sense, *an1quan2* tends to be a lost end. Comparatively, if the warning is *zhu4yi1 wei1xian3*, a tentative interpretation is: a person would receive danger if s/he doesn't pay enough attention. Thus, the delicate contrast lies in losing safety and receiving danger, and losing current state of safety seems to be more unbearable than receiving something negative, as supported by patterns from corpus. Similar pattern can be found in '*zhu4yi4 wei4sheng1'* 'pay attention to hygiene, and '*zhu4yi4 jian4kang1*' 'pay attention to health', where the literate endpoint of *zhu4yi4* is on the 'gained' end, but *zhu4yi4* shifts the viewpoint to the loss of the potential gain, which gives out more warning than the gain of potential loss. The shifting viewpoint on the object of *zhu4yi4* allows a fair account for this pattern revealed by corpus, but it would need further investigation if it is really effective to focus on the "gain" end for event that might trigger potential loss.

## 7    Conclusion

This study compared the actual use of *zhu4yi4* and *zhuan1xin1* and argued that these two verbs are not as similar as they are represented in the dictionary. The event structure denotes that *zhu4yi4* is an instantaneous activity, which is directional with an exact impact point while *zhuan1xin1* denotes a continual activity that lasts for a period of time without fixing on a specific point of the event. These can be captured by the event module of punctuality (for *zhu4yi4*) and boundary, state (for *zhuan1xin1*). By applying the theory of viewpoint aspect, we found that *zhu4yi4* and *zhuan1xin1* differ crucially in the viewpoint focus of the verbal aspect, with *zhuan1xin1* focusing on the process while *zhu4yi4* focusing on the resultant endpoint. Further, this study also provides a fine-grained comparison of *zhu4yi4* and *zhuan1xin1* between Mainland and Taiwan, based on their collocate behaviors. In the Mainland, *zhu4yi4* is more often applied to collective terms (such as places) and used as the action of command, while in Taiwan, the subjects often refer to individuals of various social sectors, and the term

is used as the action of making suggestion. *Zhuan1xin1*, contains a wider range of objects (patients) in Taiwan than in the Mainland. These results contribute to the growing body of cross-strait lexical comparison by shedding light on a near-synonym pair that has received little attention. The detailed construction of their semantic representation reflects how they are perceived across different speech communities. The last discussion section on '*zhu4yi4 an1quan2*'and '*zhu4yi4 wei1xian3*' revealed the corpus method as a powerful tool to provide empirical data to reflect people's risk perception, which is an important topic in the area of social media, health care communication, in relation to risk communication.

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