

## A Corpus-based Study on Near-synonymous Manner Adverbs: “*yiran*” and “*duanran*”

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### Abstract

While manner adverbs describe in what manner an action is carried out, a number of near-synonymous manner adverbs are found in Chinese. Yet, most dictionaries use rather general or even circular definitions for these items which persistently confuse second language (L2) learners. The subtle yet important differences between near-synonymous manner adverbs are invisible by definition but observable in the collocational behaviours. Thus, this work aims to examine the semantic differences between a pair of near-synonymous manner adverb 毅然 and 斷然 ‘resolutely’, and identify linguistic information that can be used to distinguish other pairs of near-synonyms. We propose that near-synonymous manner adverbs can be differentiated in terms of their event structures suggested by its collocated verbs, conjunctions, postpositions and nouns.

### 1 Introductions

Near-synonymy is a ubiquitous yet complex linguistic phenomenon from which language learners cannot escape. While near-synonyms are found to be of great importance in expressing ones’ ideas and feelings more precisely (Hatch & Brown 1995, Edmonds & Hirst 2002), most reference materials including dictionaries and thesauri often overlook the subtle yet critical distinctions among them. Moreover, a great deal of research indicates that the acquisition of near-synonyms is rather chal-

lenging for L2 learners (Zhang 2008, Lee & Liu 2009), and that near-synonyms take up the majority of lexical errors produced by L2 learners (Li & Wang 1987, Liu 2007, Li 2010).

According to Li & Thompson (1981: 322), manner adverbs ‘modify the verb phrase by signaling the manner in which the action of the verb phrase is carried out’. Shi (2003) classified manner adverbs into six categories, namely 意志 ‘volition’, 時機 ‘occasion’, 同獨 ‘collectivism-individualism’, 依照 ‘accordance’, 狀態 ‘state’ and 方式 ‘manner’, in which a number of near-synonyms can be found. It is observed that most Chinese dictionaries, if not all, use rather general or even circular definitions for these items with the semantic differences between them being entirely neglected. Thus, it is difficult yet important for L2 learners to acquire the usage of different near-synonymous manner adverbs, of which even Chinese native speakers are unable to explain clearly.

Under these circumstances, the paper aims to explore the semantic differences (i.e. collocations) between near-synonymous manner adverbs. In doing so, we examine the selected pair of words 毅然 and 斷然 ‘resolutely’, of which the former belongs to the group of *volition* and the latter *state*. Although they belong to different groups, the denotational meanings of these two words are rather similar. In 現代漢語詞典, 毅然 conveys the meaning of 堅決地/豪不猶豫地 and 斷然 refers to 堅決/果斷 which is claimed an adjective. According to the Academia Sinica Balanced Corpus of Modern Chinese (Sinica Corpus)<sup>1</sup>, it however functions more

<sup>1</sup> <http://www.sinica.edu.tw/SinicaCorpus/>

frequently as an adverb than an adjective. Hence, we filter out those tokens of 斷然 tagged as adjective and investigate the collocational differences between 毅然 and 斷然. We then propose various distinctive features in terms of the collocated verbs, conjunctions, postpositions and nouns. We believe this study will contribute to a better understanding of manner adverbs and enrich the existing near-synonym differentiation frameworks.

## 2 Related Work

### 2.1 Near-Synonyms

Research on near-synonyms has been a well-studied topic in the field of Chinese lexicology and semantics. In recent years, there are a series of papers on corpus-based study on near-synonyms. Tsai et al. (1998) proposed using distributional differences between near-synonyms to deduce the relevant semantic features by investigating three pairs of near-synonymous verbs including 累 and 疲倦 ‘be exhausted’, 高興 and 快樂 ‘be happy’, and 勸 and 說服 ‘convince’. Chang et al. (2000) explored seven subgroups of emotion verbs by identifying the distinctive syntactic features in terms of the distribution of grammatical functions, aspect, the transitivity etc., concluding that the contract is motivated by event structure properties. Huang et al. (2000) proposed the Module-Attribute Theory of Verbal Semantics (MARVS) that can even interpret lexical knowledge of near-synonym pairs. They conducted four case studies in order to demonstrate the correlation between lexical semantic specifications and event-structure attributes.

### 2.2 Chinese Adverbs

A number of studies have attempted to differentiate different types of near-synonymous adverbs. Tian (2015) discriminated a pair of near-synonymous time adverb 一直 and 一向 ‘always’ in terms of their semantic features. E (2015) examined the lexical semantics and syntactic distribution of three degree adverbs 更, 還 and 再 ‘more’ in comparative structures. Ai (2012) illustrated the subtle and nuanced functional and distributional differences across different genres by comparing modal adverbs 的確 and 確實 ‘really’. Despite a growing body of research on near-synonymous adverbs, not much work has been done on manner adverbs. Li & Jin (2008) described the different

usages of 成心 and 存心 ‘intentionally’. Zhang & Zhang & Shi (2013) conducted a comparative analysis of 漸漸 and 慢慢 ‘gradually’. Shao (2016) proposed an approach for the meanings of adverbs to be accurately denoted by exploring a set of manner adverbs ending with 然 “-ran2”. He distinguished 悻然 and 憤然 ‘irritatingly’, 悄然 and 默然 ‘silently’, 斷然 ‘resolutely’ and 截然 ‘entirely’, and 毅然 and 決然 ‘resolutely’.

Although 毅然 and 決然 are reasonably grouped in Shao (2016) due to their semantic similarities, we find 13 out of 14 tokens of 決然 preceded by 毅然 in the Sinica Corpus. It indicates that these two adverbs frequently co-occur and the semantic differences between them may not be as important as the two we selected. As for the pair of 斷然 *duan4ran2* and 截然 in Shao (2016), we do not consider them near-synonyms as they convey different semantic meanings.

## 3 Corpus Data

Instead of using introspective examples, the present study extracts naturally occurring data of 毅然 and 斷然 from the Sinica Corpus. As for 斷然, 38 tokens are found while 77 are found for 毅然, of which one of them is reduplicated. Only 76 tokens are therefore under examination. By observing instances of the two manner adverbs with the aid of Chinese Word Sketch Engine<sup>2</sup>, generalizations about the semantic differences between 毅然 and 斷然 are made.

## 4 Corpus Analysis

In the following subsections, we analyze the semantic information unveiled by the collocated verbs, conjunctions, certain kinds of postpositions and nouns expressing temporal relations.

### 4.1 Collocations of 毅然 and 斷然- Verbs

#### 4.1.1 Frequency of co-occurrences

毅然 and 斷然 mostly modify the action denoted by the adjacent verbs. In order to gain an insight into the event types these two adverbs take, we extract the collocated verb that is closest to the se-

<sup>2</sup> <http://wordsketch.ling.sinica.edu.tw/>

lected adverb in each sentence. However, the whole event is sometimes not clearly stated by the nearest verb as in “.....，毅然簽字離婚” ‘..., resolutely signed for divorcement’. In that case, the closest verb 簽字 ‘sign’ together with the adjacent verb 離婚 ‘divorce’ are taken into consideration. The verbal collocates that frequently co-occur with these two adverbs are shown as in Table 2.

Node	Collocated Verbs	Frequency	
毅然	放棄、放下、揚棄、捨棄	8/74	
	辭職、辭去、辭退、罷黜	6/74	
	(啟程)返回、返(國)、回(國/台灣)、回到	5/74	
	離開、搬離、轉身(往...走去)	4/74	
斷然	停止、結束、了去	4/36	
	說、道	2/36	
	否認、否定	2/36	
	引進	2/36	
	出脫、拋棄	2/36	
毅然 & 斷然	拒絕	1/74	7/36
	決定	12/74	2/36
	表示	1/74	2/36

Table 1 – Frequencies of Collocated Verbs

As shown in Table 2, there are four types of collocated verbs that are frequently collocated with 毅然. These collocated verbs refer to the action of giving up (e.g. 放棄, 放下), resignation (e.g. 辭職, 辭去), return (e.g. 返回), and leaving (e.g. 離開, 搬離), with verbs of giving up being the most frequent ones. As for 斷然, the collocated verbs can be classified into five categories, including stop (e.g. 停止, 結束), expression (e.g. 說, 道), negation (e.g. 否認, 否定), importation (e.g. 引進), and disposal (e.g. 出脫, 拋棄). Apart from that, three verbs are found to co-occur with both 毅然 and 斷然 respectively, of which each of them belongs to different groups. These groups are rejection (e.g. 拒絕), decision-making (e.g. 決定), and expression (e.g. 表示). According to our corpus data, verbs of *expression* 表示 are modified by both 毅然 and 斷然 respectively while 說 and 道 are modified by 斷然 only. It would be rather inadequate and meaningless to make a conclusion here by roughly summarizing the categories each adverb takes.

#### 4.1.2 Interchangeability of 毅然 and 斷然

We investigate the similarities and differences between the collocated verbs of the two adverbs. We conduct a substitution test and verify the grammaticality of these sentences with native speaker intuition as well as the aid of the Gigaword corpus and the CCL corpus. The interchangeability of the two adverbs is illustrated as in Table 3.

Node	Category	Potential collocated verbs
毅然	Beginning	踏出(第一步)、邁開(步伐)、投入、出來找(...工作)、獻身、走入(婚姻)、創辦、開設、引進
	Return	送返、啟程返回、回到、回國
	Confirmation	指定、參加、下嫁、出家、移民
	Acceptance	接下(...任務)
	Others	反抗、帶領、推動
斷然	Negation	否定、否認、斃殺
	Elimination	排除
	Others	劃分、領略、不予鼓勵、處理
毅然 & 斷然	End	放下、放棄、捨棄、揚棄、拋棄、辭職、罷黜、辭去、辭退、簽字離婚、輟學、結束、停止、取消、脫離、離開、退出
	Decision/choice-making	決定、選擇、做出(撤場告示)、投下(贊成票)
	Expression	表示、說、道、宣布
	Rejection	拒絕

Table 2 – Properties of Potential Collocated Verbs

In table 3, the categories of verbs are classified in a coarse-grained way for easier comparison. Some verbs belonging to a particular category may not directly refer to the meaning suggested by the category name, but they must imply the shared meaning of the category. For example, 創辦 refers to establish which connotes the meaning of a start.

As demonstrated in Table 3, there are differences between the properties of the verbs modified by 毅然 and 斷然. First, *beginning* verbs which denote the start can only be modified by 毅然, whereas those *end* verbs can collocate with both 毅

然 and 斷然. Second, *confirmation* verbs can only be taken by 毅然, while *negation/elimination* verbs can only be preceded by 斷然. Third, 毅然 collocates with both *acceptance* or *rejection* verbs, but 斷然 co-occur with *rejection* verbs only.

Apart from that, only 毅然 is found to precede *return* words. It may be due to the characteristics of 毅然 which concern the start of an event, and that *return* words imply the meaning of returning to a particular place and starting a new life in another place. Compared with 斷然, 毅然 takes a wider variety of verbs. The common feature of the verbs in *others* is that they mostly refer to a continuous event such as 推動. As for the *others* of 斷然, they are found to co-occur with the negation marker 不 in our data, such as “領略不到” ‘cannot realize’ and “不予鼓勵” ‘not encouraged’ etc. In addition, both adverbs collocate with the *decision-making* and *expression* verbs as suggested in table 3. It is observed that the *expression* verb 表示 functions as a buffer for the substitution of the two adverbs. For example, an ill-formed sentence will be produced by substituting 毅然 with 斷然 in “毅然返台” ‘returning to Taiwan resolutely’ since *return* verbs only collocate with 毅然. However, with the help of 決定 which can be preceded by both adverbs, we can form a grammatical sentence as “斷然決定返台” ‘resolutely decided to return to Taiwan’. Thus, the distinctive properties of elicited events can be generalized as follows:

- (1) 毅然 →
- |   |
|---|
| <p><b>Elicited event type</b></p> <p>a. Beginning</p> <p>b. Confirmation</p> <p>c. Return</p> <p>d. Verbs referring to a continuous event</p> |
|---|

- 斷然 →
- |   |
|---|
| <p><b>Elicited event type</b></p> <p>a. Negation/ Elimination</p> <p>b. Verbs adjacent to a negation marker</p> |
|---|

#### 4.2 Collocations of 毅然 and 斷然- Conjunctions

Since the focus sentences (sentences containing the keyword) mostly come after a comma, we hypothesize that there must be some hints in the preced-

ing sentences that help distinguish 毅然 and 斷然. Table 4 demonstrates the conjunctive collocates.

Function	Collocation	Frequency & Percentage of 毅然	Frequency & Percentage of 斷然
Cause-and-result	於是	5	0
	因	3	0
	因此	2	0
	所以	3	0
	故	1	0
	而	1	0
	之所以	0	1
Transition	然而	1	1
	可是	1	0
	但	2	1
	但是	1	0
Conditional	否則	0	1

Table 3 – Frequencies and Percentages of Collocated Conjunctions

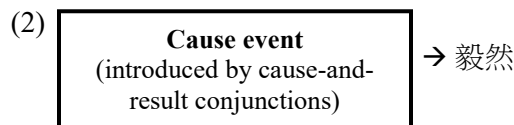
There are various conjunctions found in the concordance lines of 毅然. The collocates are grouped in terms of their functions such as *cause-and-result*, *transition*, and *conditional*. *Cause-and-result* refers to conjunctions that introduce the cause such as 因 or the result such as 所以, 因此. The span position is +15, and those occur before a period, exclamation mark, question mark or ellipsis are not counted even within the span window. For example, in “但內部黨派紛擾，政局相當不穩定。為此，斯賓諾莎毅然放下.....”，the *transitional* conjunction 但 is not considered a relevant token as the conjunctive relations is separated by the period. As for *cause-and-result*, those conjunctions introducing results should only be counted as relevant only if they precede the selected adverbs and are not used to describe another statement.

As illustrated, conjunctions functioning as *cause-and-result* are more likely to co-occur with 毅然 (19.6%), comparing to 斷然 (2.6%). It indicates that someone 毅然 did something is usually because he/ she is triggered by a cause event. For example, in “.....是不能放棄追求與學習的機會，於是毅然決然的辭去教職”，the agent resolutely quit the teaching job because he considered the learning opportunity a rare one which should not be given up. Hence, it can be seen that people 毅然

did something often with a reason or trigger while people can 斷然 do something for no reasons.

Since the co-occurrence between *transitional* conjunctions and 斷然 (6.5%) are nearly the same as 毅然 (5.2%), *transitional* conjunctions cannot serve as a distinctive feature for this pair. For *conditional*, the frequencies are rather low with only one found in 斷然 and none in 毅然. No conclusion can therefore be made.

In this section, it is proved that conjunctions functioning as *cause-and-result* are noted to be of great value in providing deep-level semantic information. Such feature helps distinguish the selected pair. The structure is shown as below:



### 4.3 Collocations of 毅然 and 斷然- Postpositions and nouns

Apart from verbs and conjunctions, it is suggested that postpositions and nouns expressing temporal relations also provide hints to uncover the motivation of the action done in the manner of 毅然/斷然. The co-occurrence of the adverbs and temporal postpositions (i.e. -時, -後, etc.) and nouns (i.e. “當時, 後來, etc.) are demonstrated as in Table 5.

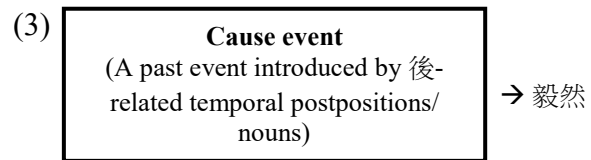
Collocations	Frequency & Percentage of 毅然		Frequency & Percentage of 斷然	
後	6	<b>13 (17.0%)</b>	1	1 (2.6%)
之後	3		0	
最後	2		0	
後來	1		0	
災後	1		0	
時	5	9 (11.8%)	3	4 (10.5%)
(之)際	3		0	
當時	1		1	

Table 4 - Frequencies and Percentages of Collocated Postpositions and nouns

The span window is set as +15, and those within the specific window but separated from the focus sentence by a period, exclamation mark, question mark, and ellipsis are considered irrelevant. Adding onto this, temporal items modifying a specified component are also screened out. For example, in “

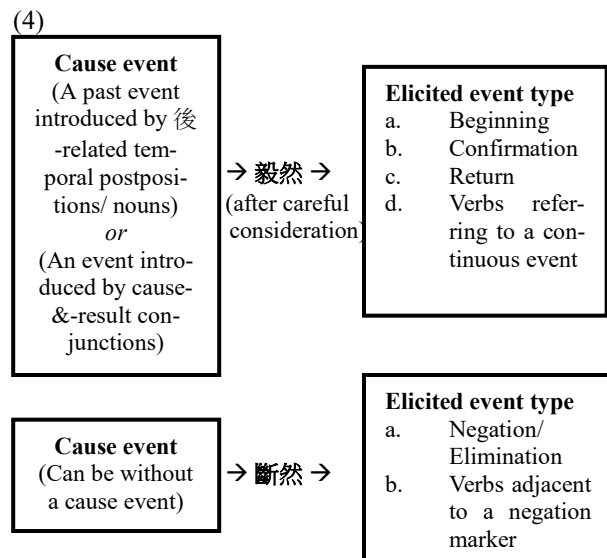
但是當時的行政院長...”, the temporal noun 當時 is obviously modifying the term of office of the President but not the temporal point of an action. 當時 is considered invalid in that case.

As shown in Table 5, the collocates are divided into two types in terms of their semantic meanings, namely 後-related and 時-related type. 後-related words are more frequently collocated with 毅然, reaching 17% while only 2.6% are found with 斷然. Statistics indicate that someone 毅然 does something after another event, meaning that the agent is triggered by a past event. As for 時-related words, the co-occurrence are similar, with 毅然 achieving 11.8% and 斷然 10.5%. It is suggested that someone 毅然/斷然 does something when another event is taking place. The distinctive structure is proposed as follows:



### 4.4 Summary of the distinctive structure of 毅然 and 斷然

In Section 4.1 – 4.3, we discuss the semantic differences between 毅然 and 斷然, be it significant or not. Collocations provide us with deep-level semantic information for differentiation of the adverbs. The distinctive structures are summarized:



## 5 Conclusion

In this study, 毅然 and 斷然 are proved to be semantically distinguishable in term of their event structures. Although they both convey the meaning of 堅決, 毅然 is usually used when someone is triggered by a cause event, introduced by *cause-and-result* conjunction or temporal postpositions or nouns. As for elicited events, only 毅然 modifies verbs related to *beginning*, *confirmation*, *return* and a continuous event, while only 斷然 co-occurs with *negation/elimination* or verbs that are adjacent to a negation marker.

Manner adverbs are syntactically similar, we discriminate near-synonymous manner adverbs in terms of semantics. We propose that not only content words are of value in semantics, function words such as conjunctions can also be beneficial. Apart from shedding light on the study of manner adverbs, the current study is also useful for many real world applications, such as language pedagogy, language acquisition, and machine translation.

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