# Near-Synonymous Manner Adverbs on Intention

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Abstract— Given that most reference materials often define nearsynonymous manner adverbs in a rather general or even circular way regardless of their semantic differences, this study explores issues with regard to the differentiation of a set of nearsynonymous manner adverbs on intention, including 特意, 特地, 故意, and 刻意. We propose that near-synonymous manner adverbs, even with similar or identical definitions, can be distinguished with the help of their collocations. It is observed that each of the four selected nodes differs from one another in terms of the degree of attainability of intentions behind actions, and semantic prosody. Results show that the attainability of intention can be revealed by certain kinds of conjunctions, with 刻意 being the lowest. Among the four manner adverbs, 特意, 特 地, and 刻意 are neutral, whereas 故意 is negative in nature. Apart from that, we also suggest that negation markers 不是 and (並/絕) 非 are particularly effective in the detection of negative events.

Near-synonyms; manner adverbs; corpus-based; semantic prosody; conjunctions; negation markers

#### I. INTRODUCTION

This paper mainly deals with near-synonymous manner Near-synonymy is a ubiquitous linguistic phenomenon that every language learner has to face. Nearsynonyms are defined as "lexical pairs that have very similar cognitive or denotational meanings, but which may differ in collocational and prosodic behavior" (Xiao and McEnery 2006: 108). As for manner adverbs, they "modify the verb phrase by signaling the manner in which the action of the verb phrase is carried out" (Li and Thompson 1981:322). While a great deal of research indicates that near-synonyms take up the majority of lexical errors made by second language (L2) learners of Chinese (Li and Wang 1987, Luo 1998, Liu 2007, Li 2010), it is observed that most reference materials including dictionaries and thesauri often overlook the subtle yet important distinctions among near-synonymous manner adverbs. In view of this, more emphasis should, therefore, be placed on the issue of the differences between near-synonymous manner adverbs.

Since the differences among near-synonymous manner adverbs are invisible by definition but observable in their collocational behaviors, this paper aims to examine the semantic differences among a set of near-synonymous manner adverbs pertaining to *intentionally*. The reasons for the choice of the four manner adverbs are because they are frequently used by both native speakers and second language learners of

Chinese. In addition, intention connotes one's personal thoughts in an intended action. Be it good or bad, knowing how these adverbs of intention differ from one another help avoid unwanted implications and unfavourable social consequences. On this account, four manner adverbs — 特意, 特地, 故意, and 刻意—are selected for examination.

#### II. RELATED WORK

With regard to near-synonymous manner adverbs on intention, the most common ones are 特意, 特地, 故意, 刻意, 有意, 成心, and 存心. They are defined in the Contemporary Chinese Dictionary (6th Edition) as follows:

TABLE I. DEFINITIONS OF ADVERBS ON INTENTIONALLY

Manner Adverb	Definition
特地	專為某件事
特意	特地
故意	有意識地(那樣做)
刻意	用盡心思
有意	故意
成心	故意
存心	有意/ 故意

As shown in Table I, some definitions are defined in a circular way. Zhou L. (2012) conducted a study on the collocational behaviors of 特意, 故意, 刻意, 有意, and 存心. She indicated that the semantic prosody of the first four items are neutral, whereas 存心 is negative. Zhou Y. Y. (2012) attempted to differentiate 故意 and 有意 in terms of semantics, syntax and pragmatics. She claimed that 故意 is negative while 有意 is positive in nature. Yet, the differences uncovered in the word of Zhou Y. Y. (2012) are rather restricted. Firstly, there are limitations on the small number of words being examined. As shown in Table I, there are other near-synonyms referring to intentionally. As each near-synonymous adverb may have distinctive features, other manner adverbs referring to intentionally should also be taken into account for these adverbs to be differentiated in a more accurate way. Secondly, it is inadequate to discriminate the two items with a relatively limited number of collocations when there are many more combinations found in various corpora.

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In addition, Zhou and Liu (2015) proposed a framework for sememe collocations of three manner adverbs, namely 故意, 有意, and 存心. They extracted the collocations of the three nodes and calculated that frequency of use as well as the semantic clustering degree. The higher frequency of the node, the higher chance they collocate with high frequency verbs, adjectives and nouns. They indicated that the proposed approach may help find out the typical collocations of the nodes. Yet, the distinctive features and the prohibitions of usage, which directly contribute to the language acquisition, cannot be easily obtained.

Among the seven adverbs, only four of them are examined in this study, namely 特意, 特地, 故意, and 刻意. The other three are removed for different reasons. First, 有意 is removed since approximately 85% of the tokens function as verbs and most of them convey the meaning of "want to" instead of "intentionally", as in (1).

# (1) 今年曝光率極高的蜜雪兒菲佛,前一陣子接受首映雜 誌專訪時表示有意息影一年,.....

'Michelle Pfeiffer, who has been extremely active this year, has an interview with the Premiere Magazine revealing that she has the desire to take a one-year break from the industry...'

Example (1) illustrates that 有意 refers to the desire but not the intention of the agent. Thus, 有意, which refers mostly to desire, should not be examined in this study. Second, 成心 is filtered out since there is only one token found in the corpus. Third, 存心 is also screened out due to its strong tendency towards negative semantic prosody. As for 故意, it is suggested to be incompatible with positive events in Zhou Y. Y. (2012), while Zhou L. (2012) argued that it is neutral. To explore whether it is neutral or negative, it is taken into consideration as well.

## III. RESEARCH METHODOLOGY

# A. Corpus Data

According to Shao (2016), one should not simply define an adverb by his own intuition. Instead, important information can be uncovered in the context with the aid of corpora. In order to differentiate the four adverbs more accurately, a corpus-based approach is adopted in this paper. The present work provides an in-depth analysis of authentic examples from a variety of genres. Instead of using introspective examples, we extract naturally occurring data of 特意, 特地, 故意, and 刻意 from the Academia Sinica Balanced Corpus of Modern Chinese (Sinica Corpus)<sup>1</sup>. Since the corpus is a comprehensive set of empirical data which is proportionally sampled, the tokens of the keywords can reflect the actual use of the words. In addition, each text is segmented, and each word is fully tagged with a grammatical category. Therefore, these tagged word classes provided by the corpus may facilitate the extraction process. For example, the differences among the adverbs may

be revealed by the events they take. With the aid of the tags, events can be easily obtained by extracting the verb following the manner adverb.

#### B. Removal of Data

In the Sinica Corpus, 特意, 特地, and 刻意 are tagged as D (adverb) while 故意 is tagged as VL (stative verb with a verbal object) or Nv (verbal nominalization). Those tagged as VL and Nv are actually with two senses of which one of the senses is referring to its adverbial use. To ensure the quality of data, we manually read through the extracted tokens of the four adverbs and screen out those invalid ones. The instances are removed mainly for three reasons. First, the reduplicate and incomplete ones are reasonably filtered out. Second, instances with a noun directly following the selected adverb are all removed, as in (2).

#### (2) 你如果試圖作一些刻意的努力......

'If you try to make some intentional effort...'

Preceded by the classifier phrase 一些, the word 努力 in (2) is obviously functioning as a noun. Therefore, 刻意 is a nominal modifier instead of an adverb. Third, some of the words tagged as nouns are indeed verbs while some of the words tagged as verbs are actually nouns. Consider (3).

### (3) 在瓊瑤的刻意栽培下……

'Under Qiongyao's intentional cultivation...'

The word 栽培 in (3) is incorrectly tagged as a verb which is actually a noun. Hence, 刻意 functions not as a manner adverb but an adjective. The sentence should not be considered valid. Besides, we also find examples with the verbs modified by the said manner adverbs being mistakenly tagged as nouns which would affect the validity of the tokens. Thus, instead of entirely relying on the tags, all the tokens are manually read through.

After manual check-up, the number of valid tokens is shown as follows:

TABLE II. NUMBER OF TOKENS

Adverb	No. of Tokens	No. of Valid Tokens
特意	56	52
特地	238	236
故意	400	337
刻意	471	414

# IV. CORPUS ANALYSIS

## A. Typical Use of the Manner Adverbs

To better understand the semantic meanings of the four near-synonymous manner adverbs and how they are generally used, some typical examples are demonstrated as in (4) – (7).

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

(4) 貝珍哀求我開車,我卻特意 (特地/故意/刻意) 把車門 打開,要看看東尼有什麼動作。

'Beizhen entreated me the drive. But I intentionally opened the vehicle door to see what action would Dongni take.'

Example (4) is a typical example of 特意. As illustrated, the four adverbs are sometimes interchangeable. 特意 in (4) takes a neutral event and it can be substituted with the other three adverbs. All the four adverbs refer to "intentionally", denoting that there must be a literally stated or a hidden intention. The intention is stated in the following sentence "要看看東尼有什 麼動作". The intention implied by 特意 and 特地 is relatively similar, comparing to 故意 and 刻意. As for 特意 and 特地, the purpose of the agent may be as simply as seeing what Tony would do with no other thoughts. The adverbs 故意 and 刻意 are also acceptable here as what the agent did (i.e. open the door of the car) is contradictory to what the girl begged him for. However, the intentions of the action modified by 故意 and 刻 意 are different. As for 故意, the action may be triggered by the poor relationship between the agent and the girl. The agent wanted to see what Tony would do to the girl, which is probably unfavorable. 刻意 connotes that the agent opened the door of the car for the reason that he wanted something to happen as planned.

(5) 這次為了清宮秋兩,他特地(特意/?故意/?刻意)再到香港添置了六套服裝,…

'For the Autumn Rain in the Qing Court Opera, he came to Hong Kong again specially this time to buy the six sets of costumes...'

Sentence (5) is an example of 特地. Similar to (4), 特地 in (5) also takes a neutral action. However, (5) is different from (4) as 特地 in (5) cannot be replaced by 故意 and 刻意. In the preceding sentence, we know the action is not done for the sake of the agent but for the Peking Opera Autumn Rain in the Qing Court, thus it is not a purpose to be achieved by the agent with intention. In that case, 特地 and 特意 convey the meaning of "specially" instead of "intentionally", and the other two adverbs are thus not compatible with the sentence.

(6) 秦王故意 (?特意/?特地/刻意) 為難他,要他在兩天以 內,找來三個公雞生的蛋。

'King of Qin intentionally put him in a difficult situation by asking him to find three eggs laid by rooster in two days'

The event in sentence (6) is a negative one indicated by 為難. The adverb 故意 shows that there must be something happened in the past that caused much bad feeling between the King of Qin and "him". The reason for putting him in a difficult situation is because the King of Qin is discontented with his behaviors and that the King would like to vent his anger. Due

to the negative semantic prosody of the sentence, the sentence is well-formed with the use of 故意 and 刻意 but sounds unnatural with the use of 特意 or 特地.

(7) 徐克宇刻意 (特意/特地/?故意) 安排,讓公司與住家距離不過十分鐘步行。

'Xu Keyu intentionally made the arrangement to ensure that it would not take him more than ten minutes to walk home from the company.'

As for the example of 刻意, the action "安排" in (7) was planned by the agent for the purpose of facilitating himself. It indicates that the action done in the manner of 刻意 is usually decided after deliberation. Since the action and the purpose is by no means a negative one, the adverb 故意 is incompatible in that sentence. As for 特意 and 特地, they can take either positive or neutral events, but the intention is not as significant as it is described by 刻意.

# B. Attainability of Intention behind Actions

The four manner adverbs usually precede an event denoted by a verb, meaning that the modified actions are carried out with intention in an either explicitly or implicitly way. In this section, we examine the attainability of intentions behind actions with the help of certain kinds of conjunctions. Conjunctions are function words which are usually regarded as, of little or no concrete meaning. These words are mostly neglected in the study of lexical semantics. However, conjunctions are proved to be of great value in providing deeplevel semantic information for the differentiation of nearsynonymous manner adverbs (Lau and Lee 2016). By attainability, it is defined as the evaluation of whether the intention of an action was successfully attained or not. Guo (1984) introduces conjunctions in terms of their functions, of which transitional and some other conjunctions are useful for the analysis. These conjunctions include 雖然, 雖說, 儘管, 但, 但是, 可是, 不過, 然而, 而, 不管, 不論, 無論, 即使, and 就.

As observed, attainability can be uncovered by the patterns of "雖然/雖說/儘管/不管/不論/無論/即使/就算 SUBJ 特意/特地/故意/刻意……" or "SUBJ 特意/特地/故意/刻意……,但/但是/可是/不過/ 然而/而……". In the extraction, the span window size is set as +15 (i.e. 15 words of the left context) for the first pattern (i.e. forward-linking elements), and -15 (i.e. 15 words of the right context) for the second one (i.e. backward-linking elements). Given that the co-occurrence of these conjunctions and manner adverbs does not necessarily reflect the attainability in all cases, the extracted tokens are manually read through to ensure the quality of result. Consider (8) and (9) which are removed for different reasons.

(8) 雖然居民並不會故意給訪談者錯誤的答案,但有時連 居民都不知道自己的答案是否正確

'Although the residents did not give the wrong answers to the interviewer intentionally, they didn't exactly know if they were providing the right answers' (9) 這位老伯若見你們來了,就故意在床上大小便,什麼 事都說不知道,故意裝得樣樣都不會,但晚上他都自 己去上廁所。

'The old man would pee and poop on the bed intentionally if he sees you coming. He would tell you he knows nothing and pretend deliberately that he is incapable of doing anything. But at night, he would use the bathroom on his own'

Although 雖然 and 但 occur in (8), the attainability of the intention behind the action cannot be estimated. This is due to the occurrence of the negation marker 不會 which entails that the action is carried out without intention. Therefore, we removed those tokens with a negation marker preceding the manner adverb. As for (9), the intention of the subject taking the action 裝得樣樣都不會 is because he wants to be taken care of. Yet, the following sentence simply indicates that the subject is actually capable of using the bathroom on his own, but it does not imply whether the action modified by the manner adverb (i.e. 裝得樣樣都不會) was successfully carried out or not. In that case, whether or not the intention behind the action was attained cannot be evaluated. Thus, we also screened out this kind of tokens. The co-occurrence of the manner adverbs and conjunctions showing attainability is listed in Table III.

TABLE III. CO-OCCURRENCE OF ADVERBS AND CONJUNCTIONS SHOWING ATTAINABILITY

Conjunction	特意	特地	故意	刻意
雖然…但是/	0	0	0	7
但/卻				
不管	0	0	0	1
不論…都	0	0	0	1
Subtotal	.0	0	0	9
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(0%)	(0%)	(0%)	(2.2%)
但	0	1	1	2
但是	0	0	1	1
不過	0	1	0	0
然而	0	1	0	1
Subtotal	0	3	2	4
	(0%)	(1.3%)	(0.6%)	(1.0%)
Total	0	3	2	13
	(0%)	(1.3%)	(0.6%)	(3.2%)

Table III is composed of two parts, among which one of them is related to conjunctions denoting "despite", and another one denoting "but". While the forward-linking elements mostly co-occur with a backward-linking element (expect for 不管) in the clause that follows as listed in Table III, the backward-linking elements sometimes occur without the co-occurrence of forward-linking elements. For cases which 但是/但 is preceded by 雖然, we count that 但是/但 to be belonging to the "雖然...

但是/但/卻" pattern; for 但是/但 that does not co-occur with 雖然, we count that 但是/但 to be a unit of its own.

As shown in Table III, 刻意 co-occurs most frequently with these conjunctions, showing that the attainability of intentions behind actions modified by 刻意 is the lowest, followed by 特地 and 故意 in descending order. Not a single token of 特意 is found to co-occur with the said conjunctions. An example of 刻意 is exemplified in (10).

(10)雖然當天演講最後被連戰刻意略過,但其書面稿仍出 現相關文字

'Although Lianzhan eventually skipped a part of his speech intentionally, his speech written on his script is still revealing the relevant part.'

In (10), Lianzhan had intentionally skipped a part (related to referendum) of his speech in an attempt to cover up certain information, but the relevant part still appears in the script of the prepared speech. Although the action 略過 was successfully carried out by Lianzhan, the conjunction 但 entails that the intention behind the action was not attained. Thus, it can be inferred that the more frequent an adverb co-occurs with these conjunctions, the more unlikely the intention behind the event modified by the said adverb will be accomplished. And hence, the attainability of the adverb is lower.

In addition, it is interesting to note that 刻意 is the only adverb that co-occurs with forward-linking conjunctions. According to Guo (1984), the forward-linking elements such as 雖然,不管, and 不論 are used to admit the fact denoted in the previous clause, and thereby place an emphasis on that clause. Following this line of thought, when both the forward-linking and backward-linking conjunctions are used together, the transitional relation is supposedly stronger than that of the single use of backward-linking conjunctions. Consider (11).

(II) 為此在赴馬前還特地到書局找尋有關馬祖旅遊的書籍 , 但舉凡澎湖、蘭嶼、綠島、甚至是金門都找得到, 就是馬祖沒有

'For that, (someone) went to the bookstore looking for travel books about Matsu Island before going to the island. You can find books about Penghu, Orchid Island, Green Island, and even Kinmen, but you just can't any books about Matsu.'

In (11), the suppressed subject went to the bookstore looking for the travel books of Matsu Island in order to know more about the island. The intention behind the action was not attained as indicated by the failure of the action marked by 但. Comparing (10) and (11), the transitional relation in (6) may be stronger than (11) given that more emphasis has been placed on the previous clause of (10) by the use of 雖然. However, it is rather difficult to compare the intentions of two subjects in different sentences, it can still be concluded that one of the reasons why people use forward-linking elements in such cases

is to stress the intention 刻意 as well as the modified actions denoted in the previous sentence.

In this section, results show that the attainability of the intentions behind the actions modified by 刻意 is the lowest as suggested by its highest co-occurrence with transitional conjunctions. This is followed by 特地, 故意, and 特意 in a descending sequence, with 特意 does not even co-occur with the above-mentioned conjunctions. In addition, forward-linking elements co-occur only with 刻意 to emphasize both the intention and the action denoted in the previous sentence.

# C. Semantic Prosody

Stubbs (2002:225) observes that "there are always semantic relations between node and collocates, and among the collocations themselves". Xiao and McEnery (2006: 105-106) suggest that "collocational meaning arising from the interaction between a given node and its typical collocates might be referred to as semantic prosody".

In this section, we present the semantic prosody of the four adverbs. First, 50 tokens of each adverbs are randomly extracted as the sample data. Second, we calculate the number of tokens co-occurring with positive, neutral, and negative statements by considering the clauses or phrases following the target adverb. Table IV illustrates the semantic prosody of the adverbs.

TABLE IV. SEMANTIC PROSODY OF THE FOUR ADVERBS

Semantic Prosody	特意	特地	故意	刻意
Positive	12%	14%	0%	8%
Neutral	82%	86%	46%	60%
Negative	6%	0%	54%	32%

As shown in Table IV, three out of the four manner adverbs often collocate with neutral events, with 特意 and 特地 reaching more than 80% and 刻意 60%. With regard to positive statements, 特地 ranks the highest with 14%, followed by 特意 (12%) and 刻意 (8%). In our sample dataset, none of a single token of 故意 modifies a positive event, and more than a half of them precede a negative statement. Although 刻意 is generally neutral, it tends to modify negative events (32%), comparing to the positive ones (8%). As for 特意 and 特地, a minority of the former co-occurs with negative statements, and none is found for the latter. On the whole, 特意, 特地 and 刻意 are neutral adverbs, while 故意 is negative. Among the three neutral adverbs, 特地 tends to be the most positive one followed by 特意, whereas 刻意 tends to be negative.

Although semantic prosody can be uncovered by counting the polarity of the collocations of the given nodes, it would be rather time-consuming. According to our preliminary observation, negation markers might be effective in helping the detection of negative events.

We extracted those tokens with a negation marker preceding one of the four adverbs from the whole set of data

(1,039 tokens). Negation markers including 不是,(並/絕)非, 絕無,沒有,從沒,不,不會,不可,不必,不應, etc. are all taken into account. When one of these negation markers precedes the target adverb followed by an event, the negation marker is negating the intention of the modified action but not the action per se. Given that the subjects (or the others) are reluctant to confess the intention behind the action, we hypothesize that those actions are likely to be negative in nature as shown in (12).

# (12) 求求你不要傷害阿諾!! 牠不是故意要燙你的! 'Please don't hurt Anuo!! It didn't mean to scald you intentionally!'

In (12), the accident is obviously a negative event that would probably irritate the injured party 你. In order to protect the dog, the speaker used 不是 to negate the intention of the action done by the dog. The negative event is therefore recognized with the help of the negation marker 不是. However, it is observed that some of the negation markers may not necessarily co-occur with negative events. In order to examine which negation markers are useful for the detection of negative events, we count the co-occurrence of negation markers and the four manner adverbs. Table V shows the co-occurrence of the five most frequent negation markers co-occurring with negative events.

TABLE V. CO-OCCURRENCE OF ADVERBS AND NEGATION MARKERS

Adverb	特意	特地	故意	刻意	Total
Negation	-				
Markers					
不是	0/1	0/0	19/20	4/5	23/26 (88.5%)
不	0/0	0/1	0/0	5/19	5/20 (25%)
不會	1/1	0/0	5/5	5/13	11/19 (57.9%)
沒有	0/0	0/0	0/0	6/12	6/12 (50%)
(並/絕)非	0/1	0/0	3/3	6/7	9/11 · (81.8%)

In Table V, the denominators represent the number of negation markers co-occurring with the manner adverbs that modify positive, neutral or negative events, and the numerators represent the number of negation markers preceding the manner adverbs that modify negative events. The total percentages show how likely a negation marker is to co-occur with a negative event. Therefore, negation markers with higher percentage mean higher reliability in the search of negative events. 不是 and (並/絕) 非 function as good indicators for the occurrence of negative events as more than 80% of them co-occur with negative statements. 不會 and 沒有 are mediocre, with approximately half of their occurrence collocated with negative events. 不 is basically of little use in this task due to the low percentage (25%). Apart from that, 故意 and 刻意 co-

occur more frequently with negation markers, comparing to 特意 and 特地. When a negation marker precedes 故意, the modified actions are very likely negative. This may be attributed to the negative prosody of 故意.

In this section, it is suggested that 故意 is a negative adverb, whereas 特意, 特地 and 刻意 are neutral. Among the three neutral adverbs, 特地 tends to be the most positive one followed by 特意, whereas 刻意 tends to be negative. In addition, negation markers 不是 and (並/絕) 非 are, in particular, of great value in detecting negative events.

#### V. CONCLUSION

In this paper, a set of near-synonymous manner adverbs are differentiated in terms of collocation variations. Various linguistic cues, such as conjunctions and negation markers, are proposed to uncover the attainability of intention and semantic prosody of the four adverbs, respectively. Results suggest that the four manner adverbs have different degrees of attainability of intention behind the actions, with the intention behind the actions modified by 刻意 being the lowest. As for semantic prosody, 特意, 特地, and 刻意 are generally neutral adverbs, whereas 故意 is the most negative one.

Ubiquitously found in Chinese, near-synonymous manner adverbs should be placed more emphasis on as only the right word can "precisely conveys the desired meaning and yet avoids unwanted implications" (Edmonds and Hirst 2002: 105). The present work is meant to propose some potential features that can be beneficial to the studies of near-synonyms, especially manner adverbs. Since manner adverbs are syntactically similar, we distinguish them in terms of their collocational behaviors. We propose that not only content words are of value in differentiating near-synonyms, function words such as conjunctions can also be beneficial. By investigating a set of near-synonymous manner adverbs, this paper provides a novel approach in uncovering deep-level semantic information for near-synonyms differentiation.

We believe that the current study will have some implications not only for the study of near-synonymous manner adverbs and language pedagogy and acquisition, but also for some real world applications in the field of Natural Language Processing (NLP), such as machine translation and sentiment or emotion analysis.

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