下墜的藝術：以語料庫為本比較中文近義詞「落」與「掉」

The Art of Falling: A Corpus-based Study of Near-synonymous Verbs 落 *luò* and 掉 *diào* in Mandarin Chinese

余瑞瑩*

Jui-ying Yu

摘　要

　　本文分析平衡語料庫語料，比較中文兩個下墜動詞「落」與「掉」。根據中研院的詞頻表，在表下墜的動詞中，落與掉的使用頻率最高。在國語辭典中兩者可相互替換，然而個別的語意特徵有待探究。兩動詞皆有作為非賓格與非作格動詞用法，本文探討出現頻率較高的前者，提出兩者在動作類型、語體分布與語意變化程度上有顯著差異。「落」描述遙遠、輕盈、與大自然相關的移動，出現在書面語，主要作為連綴動詞，表達「轉變成新狀態」之意。「掉」表達近距離、與人類活動相關的突發動作，出現在自然口語，主要仍作為移動動詞。除此之外，本文也點出兩動詞在表有界性、動作發生的初期／中期／後期階段、說話者視角以及客體的整體性上的差異。兩個動詞語意差異以 Talmy (2000) 的概念結構系統以及譬喻延伸、語意擴大與窄化的概念來解釋，概念結構系統應用的限制亦被提及。本文研究結果盼能對下移動詞組的研究有所裨益。

關鍵字：近義詞、下墜動詞、非賓格動詞、概念結構系統、譬喻延伸

＊國立臺灣師範大學英語學系學生

Abstract

This paper compares two near-synonymous verbs of falling in Mandarin Chinese, 落 *luò* and 掉 *diào*, based on data of the Sinica Corpus. According to the word list of Academia Sinica, *luò* and *diào* are the two most frequently used verbs meaning falling. Though they are interchangeable in dictionaries, their distinctive semantic meanings have yet to be investigated. The present study compares the syntactic patterns and collocates of *luò* and *diào* in unaccusative use, which is their predominant use, and identifies their crucial differences in the types of motion, genre distribution, and extent of semantic change. Specifically, *luò* depicts distant, smooth motion in nature and relates to written texts, and it has revealed a dominant use as a linking verb signaling a change into a new state. As for *diào*, it portrays proximal, abrupt motion related to human participation and occurs in natural spoken texts, and its use as a motion verb predominates. In addition to these major differences, the current study also teases out the nuanced difference between the two verbs in terms of boundedness, the initial/medial/final process of motion, the speaker's viewpoint of the motion, and the wholeness of the entity in motion. The semantic differences between *luò* and *diào* are compared based on Talmy's (2000) Conceptual Structuring System, although the limitations of the system are also suggested. The semantic change of *luò* is accounted for by the notions of semantic narrowing and broadening and metaphorical extension. The findings are expected to pave the way for further studies of downward motion verbs.

Key words: near-synonym, verb of falling, unaccusative, Conceptual Structuring System, metaphorical extension

1. Introduction

This study explores the semantic differences between the two near-synonymous verbs of falling 落 *luò* and 掉 *diào* by examining corpus data. Of verbs of falling, there are at least 14 near-synonyms listed in dictionaries, such as *luò*, *diào*, *dié*, and *dǎo*, and *luò* and *diào* are the two most frequent verbs both on Mandarin Frequency lists[1] from Wiktionary[2] and in the Sinica Corpus. However, the difference between these two verbs has yet to be clarified. In the online Mandarin Chinese dictionary by the Ministry of Education of Republic of China (MOE), both verbs are interchangeable in that *luò* is defined as 落下 *luò xià* 'fall down' and *diào* is interpreted as 掉下 *diào xià* 'fall down'. Such a circular definition reveals little about the difference between these two verbs in their syntactic structures and semantic meanings. Similarly, *luò* and *diào* are categorized as the same type in Chao (1968), Chu (2004), Chen & Guo (2009), Lin (2011), and Liu, Hu, Tsai & Chou (2015). Chao (1968) classifies both verbs as verbs of locomotion and adds that *luò* encodes falling of leaves or alighting of birds while *diào* refers to falling through air. Such an explanation is still confusing since motion of leaves or birds concerns which types of referents are in motion while motion through air pertains to manner. What manner of motion *luò* presents and what types of referents occur with *diào* remain unknown, and this suggests that "referent" and "manner" of the motions encoded by the two verbs can be compared. Chen & Guo (2009) identify both verbs as manner verbs, although what types of manners they signal is not given. Chu (2004), Lin (2011), and Liu et al. (2015) respectively find that *luò* and *diào* characterize path, motion without an endpoint, and path and direction. This indicates that motion, path, direction, and endpoint are the essential components in a motion event, and that which components *luò* and *diào* profile is worthy of re-examination. In other words, these studies provide the current study with the elements of the motions encoded by *luò* and *diào* that can be further explored, including the type of the entity in motion, manner, and the components profiled in the motion event.

Moreover, in previous studies, both *luò* and *diào* are found to convey unaccusative/unergative uses (Perlmutter, 1978, Levin & Rappaport Hovav, 1995, Lien, 2003), which are defined by the types of the core argument and the cause. On one hand, unaccusative *luò/diào*

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1 Based on Wiktionary, the lists are compiled by Keh-Jiann Chen and the CKIP Group of the Academia Sinica, and they contain 20,000 Putonghua words with the highest frequencies. In Wiktionary, only 10,000 are listed. The 10,000 words are listed in order of frequency, and pronunciations and English translations for the words are given as well.

2 Wiktionary (http://en.wiktionary.org/wiki/Appendix:Mandarin_Frequency_lists) is a sister project of Wikipedia, a free content dictionary of all languages. It is run by Wikipedia Foundation and written by volunteers on the Internet.

includes a pre-verbal or post-verbal internal argument, which is defined as Theme in that it "undergoes a change of state or location" (Goldberg, 1995:112), and it relates to an external cause. For example, in 雨落下 *yǔ luò xià* 'The rain fell down' and 牙齒掉了 *yáchǐ diào le* 'The tooth fell down', the motions are caused by a low temperature and human activity respectively. On the other hand, unergative *luò/diào* occurs with a pre-verbal external argument, which is defined as Agent in that it moves without extrinsic force. For instance, in 太陽落入觀音山 *tàiyáng luò rù guānyīnshān* 'The sun goes down into Mount Guanyin' and 王子忽然往山崖一跳，也掉進山崖下的天鵝湖裡 *wángzǐ hūrán wǎng shānyái yī tiào yě diào jìn shānyái xià de tiānéhú lǐ* 'Suddenly the prince jumped into the cliff and fell into the Swan Lake below the cliff', the motions of the entities are perceived to be self-initiated rather than caused by external force. The preliminary examination of the distributions of unaccusative/unergative *luò* and *diào* indicates that their unergative uses are low in frequency, and thus the present study zeros in on unaccusative *luò/diào*.

The current research will examine the syntactic structures and semantic properties of the collocates of *luò/diào* in corpus data to answer two questions: (1) How do *luò* and *diào* differ in their construal of downward motion concerning the components such as the referent in motion and manner? (2) How are they different in semantic meaning? Also, since corpus data provide information about genres, the genre distribution of the two verbs will be explored to see whether they present any distinctive distributional patterns. The findings are meant to make a contribution to studies of near-synonymous motion verbs and pave the way for further studies of verbs of downward motion in Mandarin Chinese.

This paper is presented as follows: § 2 introduces the theoretical foundations for the analysis, § 3 elaborates on the data source and methodology, § 4 elucidates the analysis of *luò* and *diào*, § 5 provides a general discussion, and § 6 is the conclusion.

2. Theoretical foundations

This paper adopts a cognitive approach to accounting for the differences between *luò* and *diào*. The main theoretical foundation on which the analysis is based is Talmy's (2000) Conceptual Structuring System. The system is composed of four subsystems: (1) the configurational structure system, (2) the perspective system, (3) the attentional system, and (4) the force-dynamic system. Each sub-system provides categories to illustrate how the concept of quantity in the domains of space and time is realized in linguistic forms. Quantity in space relates to nouns, while quantity in time concerns verbs. Since the present study investigates two near-synonymous verbs, the following elaboration focuses on how verbs in different grammatical

structures signal different features.

The configurational structure system includes six categories: plexity, dividedness, boundedness, degree of extension, pattern of distribution, and axiality. Plexity concerns whether the action is punctual (e.g., *He coughed*) or iterative (e.g., *He kept coughing*). A punctual action is uniplex while an iterative action is multiplex. Dividedness makes a distinction between a discrete and a continuous action. This category is related to plexity in that a punctual action is discrete while an iterative one is continuous. Boundedness relates to whether the action has boundaries (e.g., *He finished the work in four minutes*) or not (e.g., *The city never sleeps*). Degree of extension interacts with boundedness and signals the duration of an action. A bounded action can occur at a point (e.g., *She finished the work at 1 o'clock*) or extend over time (e.g., *She finished the work in an hour*), while an unbounded action extends over time (e.g., Lily *slept for two hours*). Pattern of distribution defines actions as one-way nonresettable (e.g., *die*), one-way resettable (e.g., *fall*), full-cycle (e.g., *flash*), multiplex (e.g., *breathe*), and steady-state (e.g., *sleep*). Axiality is about how lexical items can be conceptualized on an axis according to the modifiers with them. For example, the antonyms *well* and *sick* are points on an axis related to health. The modifiers that are allowed to occur with them help identify their relative location on the axis. For example, *almost* can occur with *well* instead of *sick* (*He is almost well/*sick*) to signify a healing process toward recovery as an endpoint, and thus *well* is at the endpoint on the axis. *Slightly*, in contrast, occurs with *sick* rather than *well* (*He is slightly *well/sick*) to refer to a health condition worse than before during a process, and thus *sick* represents the remainder of the axis. Of these six categories, pattern of distribution is not adopted in the present study in that *luò* and *diào* are both semantically similar to the verb *fall*, which is defined as one-way resettable, and thus no further analysis is needed to compare their difference in this category. Plexity and dividedness are lumped together as "dividedness" in that they are conceptually similar and the term "dividedness" is more comprehensible. Degree of extension and boundedness are combined as "degree of extension", whose subcategories include boundedness. The category of axiality is not adopted in this study in that *luò* and *diào* are not antonyms whose relations can be distinguished on a directed axis. However, the idea of examining modifiers to identify the characteristics of lexical items is applied in the following analysis. The modifiers or other collocates are found to signify the manners of the motions encoded by *luò* and *diào*, such as steady and abrupt. Since manner is also a crucial element in a motion event (Talmy, 1985:57), it is added as another category that distinguishes *luò* and *diào*.

The perspective system includes four categories: perspectival location, perspectival distance, perspectival mode, and direction of viewing. Perspectival location refers to the speaker's current location within a reference scene. For example, *The train is coming*

foregrounds the speaker and his proximity to the scene. Perspectival distance evinces the distance of a referent in relation to speaker/hearer as proximal (e.g., *The mug is right here*), medial (e.g., *The mug is over there*), or distal (e.g., *The mug is way over there*). Perspectival mode relates to a stationary (e.g., *There are a number of castles on the hilltop*) or a moving (e.g., *There is a castle every now and then through the hills*) viewpoint. Direction of viewing refers to the speaker's prospective or retrospective viewpoint of two successive events. For example, *I went shopping before I went home* demonstrates a prospective viewpoint in that the speaker's viewpoint is located at the temporarily earlier event first and stretches forward to the later event. *Before I went home*, *I went shopping*, on the other hand, presents a retrospective viewpoint in that the speaker's viewpoint is located at the temporarily later event and extends back to the earlier event. In this sub-system, only perspectival distance and direction of viewing are adopted. Perspectival location can be subsumed in perspectival distance in that the speaker's location can be specified by his distance from the referent, and this category differentiates *luò* and *diào* in terms of how far the motions they denote are from the perceiver. Direction of viewing is used to examine whether the motion described by *luò/diào* occurs in the speaker's prospective or retrospective viewpoint. Perspective mode is not included in that the viewpoint in the motion events of *luò* and *diào* should be moving rather than stationary.

The attentional system includes three factors: strength, pattern, and mapping. Strength concerns whether a referent is foregrounded or backgrounded. Pattern refers to the patterns that foreground different elements in an event. Three patterns are illustrated: focus of attention, window of attention, and level of attention. A focus of attention pattern organizes a figure-ground relation and foregrounds the figure. For example, in *Millie gave Gary a gift*, *Millie* is the figure, which is foregrounded, while *Gary* and *gift* serve as the ground and are backgrounded. A window of attention pattern highlights the initial, medial, or final phase of a scene. For example, *The cargo dropped out of the plane, through the air, and into the sea* windows all the three phases while *The cargo dropped into the sea* only profiles the final process. A level of attention pattern emphasizes wholeness/componentiality of a referent. For example, *a set of books* includes two NPs, *set* and *book*, and *set* represents the books as a whole while *book* specifies the component that comprises the set. Mapping refers to the way in which the parts of a pattern are mapped onto the parts in a scene. The three factors in this sub-system are employed in the current study to illuminate the distinctive syntactic patterns of *luò* and *diào* and how these patterns foreground different types of referents and phases of an event.

The force-dynamics system concerns how two entities interact with respect to force. The entity that exerts force is the Antagonist and the entity that resists the force and receives the focus of attention and is the Agonist. This system is adopted to distinguish the types of the Agonist and

the Antagonist occurring in motion events of *luò* and *diào*. With regard to types of the Agonist and the Antagonist, current cross-linguistic studies of verbs of falling have observed parameters such as multiplicity of the Agonist (Kadyrova 2020, Panina, 2020) and cause of the motion (Reznikova, Rakhilina, & Ryzhova, 2020), which corresponds to the Antagonist. Motivated by these studies, the present study will further tease apart those parameters that distinguish the differences between *luò* and *diào*.

After the modification of the categories in the four sub-systems to serve the purpose of the current research, seven categories are adopted and their related attributes are listed in Table 1.

Table 1. Categories adopted from Conceptual Structuring System in Talmy (2000:48-66)

Category	Illustrating attribute
dividedness	discrete/continuous
degree of extension	point/bounded/unbounded
manner	steady/abrupt
perspectival distance	proximal/medial/distal
direction of viewing	prospective/retrospective
pattern of attention	figure/ground initial/medial/final process wholeness/componentiality of a referent
force-dynamics	types of Agonist and Antagonist

Moreover, this work will present the semantic change of *luò*, including narrowing and widening, and explain its relation to metaphorical extension. Semantic change refers to change in word meanings, and similar categories of semantic change have been identified in different studies, such as narrowing, widening, and metaphor (Ullmann, 1957, Bloomfield, 1993, Blank, 1999). Narrowing refers to the case in which a word carries a more restricted meaning than before, while widening is the opposite process whereby a word develops a more generalized meaning. These two notions can be exemplified by the words *hound* and *dog*. *Hound* used to denote any kind of dog and has become a word for a particular breed of dog, while *dog*, which used to refer to a certain kind of dog, has become a generic word for canines. Metaphorical extension is claimed to be one of the mechanisms of semantic change (Bybee & Pagliuca, 1985, Traugott & Dasher, 2002), and it is concerns a process whereby a concrete lexical item encompasses a more abstract meaning with continued use in an abstract domain. This research will illuminate how the meaning of *luò* changes through metaphorical extension and how it becomes broader and restricted in different contexts.

3. Data and methodology

To conduct the analysis based on systematically-arranged data, this paper collects data from Sinica Corpus 4.0.[3] The corpus contains data collected from 1981 to 2007 and has about ten million words,[4] and it encompasses written texts of eleven genres and spoken texts of four genres.[5] The mass of data is systematically coded and readily accessible and thus the database is reliable and adequate for the current study. Its genre diversity of the data also facilitates a comparison between *luò* and *diào* in terms of genre distribution. The following are the steps of data collection in the current study:

1. The data collection started in June, 2017, with respective queries for all the entries of *luò* and *diào* in the corpus, and a total of 7254 tokens of *luò* and 3120 tokens of *diào* were respectively retrieved.

2. The retrieved data were manually inspected, and recurring entries and those that do not function as unaccusative verbs were removed.

3. The remaining entries were further examined, and those that do not occur as lone unaccusative verbs of falling were eliminated. The eliminated types are illustrated as below:

Type	Example
homograph	丟三落四 *diūsānlàsì* 'to be forgetful'
compound	落款 *luòkuǎn* 'to sign', 掉淚 *diàolèi* 'cry'
idiom	一起一落 *yīqǐyīluò* 'up and down', 掉以輕心 *diàoyǐqīngxīn* 'take something lightly'
fixed expression	月落烏啼霜滿天 *yuè luò wū tí shuāng* mǎn *tiān* 'The moon fell and craws cawed in the frosty sky'
relative clause	掉到河裡面的人 *diào dào hé lǐmiàn de rén* 'the one who fell into the river')
others	the syntactic construction V- 掉 *diào*

Based on the steps, a majority of the retrieved data were eliminated since they are mostly compounds, relative clauses, or do not serve as lone unaccusative verbs of falling. As a result, a total of 444 tokens of *luò* and 302 tokens of *diào* were selected. Next, the selected data were categorized according to syntactic patterns, written/spoken texts, and genres for further comparisons (see Sec. 4).

4. Analysis of *luò* and *diào*

This section unveils differences between unaccusative *luò* and *diào* in meaning and use by comparing their syntactic structures, semantic properties of their collocates, and their genre distributions. In terms of syntactic structures, unaccusative *luò* and *diào* occur with a pre-verbal/post-verbal Theme in three patterns: [Theme V complement], [Theme V], and [V Theme], and their distributional patterns are presented in Table 2. How the syntactic structures and collocates of *luò/diào* reveal their distinctive meaning and use will be detailed in the following subparts. The analysis begins with the predominant structure.

Table 2.[6] Syntactic structures of unaccusative *luò/diào*

Structure	Verb	*luò*	%	*diào*	%
[Theme V complement]	written	371	84%	228	75%
	spoken	18	4%	19	6%
[Theme V]	written	38	9%	18	6%
	spoken	2	0%	1	0%
[V Theme]	written	15	3%	36	12%
	spoken	0	0%	0	0%
Total		444	100%	302	100%

4.1 [Theme *luò/diào* complement]

With reference to the complement types identified in 劉, 潘, & 故 (2006), the complements in this structure are categorized into six types: (1) co-verb + Loc-NP (Cov Loc-NP), (2)

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6 The percentages are rounded as integers, and thus their total may not be exactly 100 due to errors and it is still recorded as 100. The following tables are also shown in the same way.

directional verb + Loc-NP (Dir Loc-NP), (3) a lone directional complement 下 *xià* 'descend', (4) directional compounds such as 下來 *xiàlái* 'come down'/ 下去 *xiàqù* 'go down' and 進去 *jìnqù* 'go into'/ 出來 *chūlái* 'come out' (Dircompound), (5) quantity, and (6) result. As the complement "result" is rare in the corpus, we will focus on the first five types and discuss them respectively in 4.1.1-4.1.5.

4.1.1 [Theme *luò/diào* Cov Loc-NP]

In this sub-pattern, both *luò* and *diào* occur with the co-verbs 在 *zài* 'at' and 到 *dào*/至 *zhì* 'arrive', and *luò* also co-occurs with 於 *yú* 'at'and 向 *xiàng* 'face'. The occurrences of [*luò/diào dào/zhì* Loc-NP] indicate that both verbs highlight the direction, path, and endpoint of motion, while [*luò/diào zài* Loc-NP] profiles the endpoint. The motion with reference to an endpoint also windows the final process. The interaction between *luò/diào* and their Themes and Loc-NPs in these variations are compared separately.

[Theme *luò/diào zài* Loc-NP] occurs with animate/inanimate Themes and concrete Loc-NPs to denote real motion, which is its literal use. In depicting real motion, *luò* is associated with naturalness while *diào* concerns human participation, as illustrated in (1). Moreover, *diào* in (1b) expresses an abrupt motion which ensues when the speaker gets out of the car, which is rarely found in the data of *luò*. Also, (1a) and (1b) demonstrate different directions of viewing: the former presents a prospective viewpoint since the description of the motion event of *luò* and the other event follows a temporal order, while the latter describes the motion event of *diào* in a retrospective viewpoint since it occurs earlier than the speaker's movement out of the car. In fact, none of the tokens of [Theme *luò zài* Loc-NP] marks a motion that relates to a retrospective perspective, which signifies the distinction between *luò* and *diào* in perspective direction.

(1) [Theme literal *luò/diào zài* Loc-NP]

      a. 幾　片　樹葉　落 在　江　　上，連漪　裡是　奔跑　的　少女。

        jǐ　piàn shùyè　luò zài jiāng shàng liányī lǐ shì bēnpǎo de shàonǚ

        several CLF[7] tree.leaf fall at river on　ripple in COP run NOM teenage.girl

        'Several leaves fell onto the river, and the teenage girls were running in the ripples.'

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7 The following abbreviated glosses are used in the data in this paper: 1SG: first person singular; 2SG: second person singular; 3SG: third person singular; 1PL: first person plural; 2PL: second person plural; 3PL: third person plural; ASP: aspect marker; ASSOC: associative; CLF: classifier; COP: copula; EXT: existential; GEN: genitive marker; NEG: negative; NOM: nominalizer; PN: proper noun; RC: resultative complement; UFP: utterance final particle.

b. 我 一　 下　 車　 發現，錢包　 掉　 在　車　 上　 了。
wǒ yī　 xià　 chē fāxiàn qiánbāo diào zài chē shàng le
1SG soon get.out car find　 wallet　 fall　 at　 car on　 ASP
'As soon as I got out of the car, I found the wallet had been left behind in the car.'

Furthermore, [Theme *luò zài* Loc-NP] reveals non-literal use of describing figurative motion, which predominates over its literal use, while [Theme *diào zài* Loc-NP] rarely exhibits non-literal use. Non-literal *luò* collocates with two types of Themes: abstract and animate. The abstract Themes, on one hand, occur with four types of Loc-NPs that are not found in the data of *diào*: (1) 後 (面) *hòu(miàn)* 'the back', (2) upper body parts, including 頭 *tóu* 'head', 肩 *jiān* 'shoulder', and 身 *shēn* 'body', (3) ranges, and (4) diverse types. These four collocations are introduced in (2):

(2) four types of Loc-NPs in [abstract Theme non-literal *luò zài* Loc-NP]

a. *hòu(miàn)*
我們　 的　 科學　 研究　　 工作，勢必　　 永遠　 落 在 人家 的　　 後面。
wǒmen de　 kēxué　 yánjiù gōngzuò shìbì　 yǒngyuǎn luò zài rénjiā de　 hòumiàn
1PL GEN scientific research work　 certainly always　 fall at　 others GEN back
'Our scientific research will certainly always fall behind others'.'

b. upper body parts
由於　　 嬸嬸 要　　 外出，家 裡 又　 沒有　 任何 大人，
yóuyú　 shěnshen yào　 wàichū jiā　 lǐ　 yòu méiyǒu rènhé dàrén
because aunt　 need go.out home in　 and NEG　 any　 adult
所以 這 項　　 重責大任 自然　 就 落 在 我 身　 上 了。
suǒyǐ zhè xiàng zhòngzédàrèn zìrán　 jiù luò zài wǒ shēn shàng le
so　 this CLF responsibility naturally just fall at 1SG　 body on　 ASP
'Because my aunt has to go out, and no grownup is at home, this onerous duty naturally falls on me.'

c. range
今年　 手機　 需求 量　　 將 僅 落 在 四億　 至
jīnnián shǒujī　 xūqiú liàng　 jiāng jǐn luò zài sìyì　 zhì
this.year cellphone demand quantity will　 only fall at 0.4.billion to

四·二億　支　之間。

sì　èryì　zhī　zhījiān

0.42.billion　CLF　between

'This year, the demand quantity of cellphones will only be between 0.4 and 0.42 billion.'

d. diverse

善　是一　個　廣泛　的　　詞，它　具體　落在　人類　的

shàn　shì　yī　ge　guǎngfàn　de　　cí　tā　jùtǐ　luò zài　rénlèi　de

virtue COP one CLF general　ASSOC term 3SG concrete fall at　human GEN

生命　　　中，則　是　特定　的。

shēngmìng　zhōng　zé　shì　tèdìng　de

life　　　　　in　then COP specific ASSOC

'Virtue is a general term, (but) it becomes specific when it concretely appears in human life.'

In (2a), *luò* + *hòu(miàn)* corresponds to the English idiom *fall behind*, and this suggests that *luò* may also have been part of an idiom and that its literal meaning has been fused and weakened. The idiomaticized *luò* exemplifies semantic narrowing since it carries a fixed meaning. (2b) demonstrates the co-occurrence of a duty-denoting Theme and an upper-body-part-denoting Loc-NP, which is also a dominant collocation. The co-occurrence construes something undesirable forced upon someone, and thus *luò* in this collocation carries the meaning of coercion. In (2c), the two quantity-denoting Loc-NPs and the phrase 之間 *zhījiān* 'between' demarcate a range, and their co-occurrence with the Theme and *luò* depicts fictive movement of quantity onto an uncertain point. *Luò* in this collocation connotes speculation, and the meaning is contributed to not by the Theme but by the Loc-NPs. Moreover, in such use, *luò* suggests a motion along an erratic course on both vertical and horizontal planes and its potential landing sites are conceptualized as points distributed on a horizontal axis. Those range-denoting Loc-NPs also show diversity in that they can refer to numbers, creatures, or periods. In (2d), both Theme and Loc-NP display diversity, and *luò* marks a transition into a particular situation. In other words, *luò* in (2b)-(2d) also reveals semantic weakening, although *luò* with various extended meanings demonstrates semantic widening.

The animate Themes with non-literal *luò*, on the other hand, all refer to human beings. The human Themes also occur with *hòu(miàn)* 'the back' and diverse Loc-NPs, as demonstrated in (3). Again, *luò* in these two collocations exemplifies semantic narrowing and widening.

(3) [human Theme non-literal *luò zài* Loc-NP]

  a. 兩　個　強盜　已　落　在　後面。

    liǎng　ge　qiángdào　yǐ　luò　zài　hòumiàn

    two　CLF　bandit　already　fall　at　back

    'The two bandits have fallen behind.'

  b. 我們　希望　能　落在　有　道德、愛心、美感　的　世界。

    wǒmen　xīwàng　néng　luò zài　yǒu　dàodé　àixīn　měigǎn　de　shìjiè

    2PL　hope　can　fall at　EXT　morality　kindness　aesthetics　ASSOC　world

    'We hope to fall into a world of morality, kindness, and aesthetics.'

Different from *luò*, *diào* in [Theme *diào zài* Loc-NP] rarely expresses non-literal use. Moreover, *diào* is found to occur with the lexical items that denote abruptness, e.g., 一 *yī* 'as soon as' and the motion is related to human activity:

(4) lexical items denoting abruptness in [Theme *diào zài* Loc-NP]

陳達海　得理不讓人又　是　一　劍，刺中　蘇普　手腕，噹啷　一聲，

chéndáhǎi　délǐbùràngrén yòu　shì　yī　jiàn　cìzhòng sūpǔ shǒuwàn dānglāng　yīshēng

PN　not.let.go　again COP one sword stab-RC PN　wrist　clang　one.sound

短刀　掉　在　地下。

duǎndāo diào zài　dìxià

dagger　fall　at　ground

'Dahai Chen wouldn't let go and stabbed again at Pu Su's wrist; with a clang, the dagger dropped onto the ground.'

In [Theme V *dào* Loc-NP], *luò* and *diào* also show literal and non-literal use. On one hand, the literal use of [Theme *luò/diào dào* Loc-NP] is demonstrated in (5), and *diào* in this pattern mostly conveys such use. In (5a), *luò* portrays natural, smooth motion, while in (5b), *diào* accentuates human-related abrupt action. Note that *luò* and *diào* seem to be interchangeable in (5a), which reflects the notion of fuzziness in cognitive linguistics (Evans & Green, 2006) and suggests overlaps between the uses of *luò* and *diào*. Nevertheless, the substitution of *diào* for *luò* in (5a) emphasizes a different manner of the motion, i.e., abruptness rather than smoothness.

(5) [Theme literal *luò/dào dào* Loc-NP]

a. 種子　　彷彿　　長　了　　翅膀，飛　得　很　　遠，落　到　一　片
zhǒngzǐ fǎngfú zhǎng le chìbǎng fēi de hěn yuǎn luò dào yī piàn
seed　　as.if　grow ASP wing　　fly　DE very　far　fall arrive one CLF

碧綠　　的　　　田　裡。
bìlǜ　　de　　　tián lǐ
verdant ASSOC field in

'The seed flew far as if it had grown wings and fell into a verdant field.'

b. 突然　　那　位　同學　　走　不　　穩，撞到　　　我　的　手，
tūrán　nà wèi tóngxué zǒu bù wěn zhuàngdào wǒ de shǒu
suddenly that CLF classmate walk NEG steady hit-RC　1SG GEN hand

二十　元　　　就　掉　到　　水溝　裡　去　了。
èrshí yuán　　jiù diào dào shuǐgōu lǐ qù le
twenty NT.dollar then fall arrive　gutter　in go ASP

'Suddenly, that classmate lost his balance and hit my hand, and the 20 dollars fell into the gutter.'

In non-literal use, on the other hand, *luò* mostly conveys this use, and *luò* and *diào* show different collocation patterns. To begin with, almost all the tokens of *diào* collocate with an abstract Theme and a scale-denoting Loc-NP, while *luò* occurs with abstract/human Themes and diverse Loc-NPs, including scale-denoting Loc-NPs. This suggests that non-literal use of *diào* is restricted to certain collocations. In depicting figurative motion with reference to a scale, both *luò* and *diào* capture motion from a higher position to a lower one, and thus bears the extended meaning of downgrade, as shown in (6). However, *diào* also occurs with collexemes communicating abruptness as its literal use (e.g., 立刻 *lìkè* 'immediately' in (6b)), while *luò* does not, and thus the manner of motion distinguishes both verbs in recounting a downgrade.

(6) [abstract Theme non-literal *luò/diào dào* scale-denoting Loc-NP]

a. 台灣　主要　　城市　的　　　生活　成本　一再　　　上漲，
táiwān zhǔyào chéngshì de　　shēnghuó chéngběn yīzài　shàngzhǎng
PN　　major　city　ASSOC living　cost　repeatedly rise

排名　落　到　　全球　第四十三。
páimíng luò dào quánqiú dìsìshísān
rank　fall arrive world　forty-third

'The cost of living in major cities in Taiwan has been soaring, and Taiwan fell to forty-third in the world rankings.'

b. 他　趕緊　交手　　給 其他　同事，自己 立刻　　　　倒 下，
tā gǎnjǐn jiāoshǒu gěi qítā tóngshì zìjǐ lìkè　　　dǎo xià
3SG hurry hand.over give other colleague oneself immediately fall descend

血壓　　　　　已經　掉 到　六十，心跳　也 只 有　　五十 下。
xuěyā　　　 yǐjīng diào dào liùshí xīntiào yě zhǐ yǒu wǔshí xià
blood.pressure already fall arrive sixty heartbeat also only EXT fifty time

'(Soon after) he handed (the work) over to the other colleagues, he fell down immediately, and his blood pressure had dropped to 60 and his heartbeat was only 50.'

Also, *diào* in (6b) relates to a retrospective viewpoint since the second event, i.e., the person's blood pressure dropped, occurs earlier than the first event, i.e., the person fainted. Such use also recurs in the data of *diào*. In contrast, *luò* seldom presents a retrospective perspective.

Moreover, non-literal *luò* with an abstract Theme also recurs in [duty-denoting Theme V *dào tóu/jiān/shēn*] and [abstract Theme V *dào* diverse Loc-NP] as it does in [Theme V *zài* Loc-NP], and these two collocations express coercion and a shift to a particular state respectively:

(7) [abstract Theme non-literal *luò dào* Loc-NP]

a. [duty-denoting Theme *luò dào tóu/jiān/shēn*]

封翎　少將　　是 軍隊裡 最　年輕　的　少將，
fēnglíng shàojiàng shì jūnduì lǐ zuì niánqīng de shàojiàng
PN major.general COP army in most young ASSOC major.general

最　艱苦 的 任務　都 落 到 他 肩　上。
zuì jiānkǔ de rènwù dōu luò dào tā jiān shàng
most difficult ASSOC task all fall arrive 3SG shoulder on

'Fengling, Major General, is the youngest major general in the army, and the most difficult tasks were all imposed on him.'

b. [diverse Theme *luò dào* diverse Loc-NP]

他 的　目光 落 到 了 前方 雄偉　的 故宮 上。
tā de mùguāng luò dào le qiánfāng xióngwěi de gùgōng shàng
3SG GEN eyesight fall arrive ASP ahead majestic ASSOC PN on

'His attention was directed to the National Palace ahead.'

Furthermore, *luò* also occurs with human Themes and diverse Loc-NPs and reveals semantic narrowing and broadening, as given in (8). In (8a), the collocation with 手 *shǒu* 'hand' corresponds to the English idiom *fall into one's hands*, and thus suggests idiomaticization of *luò*; in contrast, (8b) shows that *luò* does not carry a specific meaning, but rather, generally registers a change into a particular condition.

(8) [human Theme non-literal *luò dào* Loc-NP]

a. 只是，　兩　位　<u>帥哥</u>　　　<u>落</u>　<u>到</u>他　<u>手</u>　　<u>上</u>，　全　　都
　 zhǐshì　liǎng wèi shuàigē　　　luò dào tā shǒu　shàng　quán　dōu
　 however two CLF handsome.guy fall arrive 3SG hand　on　completely all

　 變　　　了　型。
　 biàn　　le　xíng
　 change ASP style

　 'However, in his hands, the two handsome men both changed their styles completely.'

b. 真　　不　敢　　相信　<u>自己</u>　竟然　　<u>落</u>　<u>到</u>　這般　<u>田地</u>！
　 zhēn bù gǎn xiāngxìn zìjǐ　jìngrán　luò dào zhèbān　tiándì
　 really NEG dare believe oneself actually fall arrive such　situation

　 '(I) really cannot believe I actually ended up like this!'

The remaining three variations of [Theme *luò/diào* Cov Loc-NP] are not detailed here. [Theme *luò/diào zhì* Loc-NP] is scarce and expresses a downgrade, e.g., 排名落／掉至第⋯名 *páimíng luò/diào zhì dì⋯míng* 'The rank dropped to the⋯place', as [Theme non-literal *luò/diào dào* Loc-NP] does. [Theme V *xiàng/yú* Loc-NP] is only found in the data of *luò*. Nevertheless, the occurrence of [Theme *luò xiàng* Loc-NP] is rare, and [Theme *luò yú* Loc-NP] reveals the collocations of *luò* + *hòu* 'the back'/range-denoting Loc-NPs, which have been found in [Theme *luò zài* Loc-NP].

The examples of [Theme *luò/diào* Cov Loc-NP] also indicate that the Themes with the two verbs represent a whole entity rather than part of it, and thus *luò/diào* features the wholeness rather than componentiality of the Themes. Moreover, both verbs encode discrete and punctual motion since they mostly portray episodic motion onto/into an endpoint.

In terms of genres, [Theme *luò/diào* Cov Loc-NP] is mostly distributed in news reports and narratives, both of which are written texts. Their occurrences in spoken texts are low, although a discrepancy is noted. Nearly half of the spoken data of *luò* occur in this pattern, while the spoken data of *diào* are scarce. However, the spoken data of *luò* are all from speeches. Speeches

are monologues that employ formalized language and can be similar to written texts (e.g. (2d), (3b)). In contrast, the spoken data of *diào* are all found in natural conversations (e.g. (1b)). This suggests that *diào* is preferred in authentic spoken language in the description of downward action, although more data are required for further investigation.

The distribution of [Theme *luò/diào* Cov Loc-NP] in terms of use and written/spoken texts is summarized in Table 3. The major difference lies in literal/non-literal use of the two verbs. Literal *luò* and *diào* are distinct in the depiction of motion related to nature or human beings, while non-literal *luò* and *diào* are different in their extent of semantic narrowing/widening.

Table 3. Distribution of [Theme *luò/diào* Cov Loc-NP]

	Use		*luò*	%	*diào*	%
literal	nature-related motion	written	29	14%	11	13%
		spoken	0	0%	0	0%
	human-related motion	written	33	16%	47	54%
		spoken	0	0%	2	2%
	others	written	3	1%	5	6%
		spoken	0	0%	1	1%
non-literal	idiomaticization	written	26	12%	0	0%
		spoken	2	1%	0	0%
	semantic extension	written	111	53%	19	22%
		spoken	6	3%	2	2%
Total			210	100%	87	100%

4.1.2 [Theme *luò/diào* Dir Loc-NP]

Like [Theme *luò/diào* Cov Loc-NP], this sub-pattern also characterizes punctual motion and profiles the final process of motion. Both verbs occur with the directional verbs 下 *xià* 'descend' and 進 *jìn*/ 入 *rù* 'enter'. *Luò* also occurs with 回 *huí* 'return' and *diào* also occurs with 出 *chū* 'exit'. However, [*luò huí* Loc-NP] and [*diào chū* Loc-NP] are scarce, and thus these two variations will not be elaborated.

The occurrences of [Theme *luò/diào xià* Loc-NP] are low, although they corroborate the difference found in the literal use of [Theme *luò/diào dào* Loc-NP]. *Luò* portrays steady, smooth motion in nature, while *diào* concerns sudden human action. Moreover, *luò* in (9a) is associated with precipitation, which is in fact also noted in [Theme *luò* Cov Loc-NP]. *Diào*, in contrast, is

rarely collocated with such natural phenomena. Since precipitation suggests a Theme in a great amount, multiplicity can be a distinctive semantic feature of the Theme of *luò*.

(9) [Theme literal *luò/diào xià* Loc-NP]

a. 還　看見　　風　　吹　過　人間，還　　聽見　雨 落 下　人間。

   hái kànjiàn fēng chuī guò rénjiān hái tīngjiàn yǔ luò xià rénjiān

   also see-RC wind blow ASP world also hear-RC rain fall descend world

   '(I) also see the wind blowing over the world and hear the rain falling into the world.'

b. 他　心裡　　認定　　一 失手　　　就 一定 會 掉 下　　萬丈深淵。

   tā xīnlǐ rèndìng yī shīshǒu jiù yīdìng huì diào xià wànzhàngshēnyuān

   3SG inside consider-RC once lose.grip soon surely will fall descend abyss

   'He was sure that he would certainly fall into the abyss once he lost his grip.'

Most of the tokens of [Theme *luò/diào jìn* Loc-NP] convey literal use. The occurrence of *luò* is low and its Themes do not reveal a semantic tendency, while the examples of *diào* tend to characterize both human action and motion caused by human force, as exemplified in (10). (10a) also signifies unexpectedness due to the collocate 忽然 *hūrán* 'suddenly':

(10) [Theme literal *diào jìn* Loc-NP]

a. 忽然，　碰！　的　　　一聲，　公主　掉 進 了 巫婆　的

   hūrán pèng de yīshēng gōngzhǔ diào jìn le wūpó de

   suddenly bang ASSOC one.sound princess fall enter ASP witch GEN

   陷阱　裡，她 一直　　　喊：救命　啊！！救命　啊！

   xiànjǐng lǐ tā yīzhí hǎn jiùmìng a jiùmìng a

   trap in 3SG continuously shout help UFP help UFP

   'Suddenly, with a bang, the princess fell into the witch's trap, and she kept shouting "Help! Help!"'

b. 是不是 他　搖　飲料　時 也 這麼　抓；那 頭皮屑　都

   shìbùshì tā yáo yǐnliào shí yě zhème zhuā nà tóupíxiè dōu

   is.it 3SG shake drink when also so scratch that dandruff all

   掉 進 飲料　裡 了……。

   diào jìn yǐnliào lǐ le

   fall enter drink in ASP

'Did he also scratch (it) when shaking drinks? The dandruff all fell into the drinks⋯'

Luò and *diào* in [Theme V *rù* Loc-NP] reveal differences in both literal and non-literal use, although the differences are similar to the findings in the previous analysis. Literal *luò* features smoothness and natural force while literal *diào* characterizes abruptness and human action:

(11) [Theme literal *luò/diào rù* Loc-NP]

a. 我們　的　　生命　　如此　短暫，　猶如 一 片　茶葉　　偶然
wǒmen de shēngmìng rúcǐ duǎnzàn yóurú yī piàn cháyè　ǒurán
2PL　GEN　life　　so　　short　　like one CLF tea.leaf accidentally
落　入　壺　中。
luò rù hú zhōng
fall enter pot in
'Our life is so short, like a tea leaf accidentally falling into a pot.'

b. 猛　　一 回頭，　　　又　掉入 一個　　深 不 見 底　黑洞　　裡。
měng　yī huítóu　　　yòu diào rù yī ge　shēn bù jiàn dǐ hēidòng　lǐ
suddenly soon turn.around again fall enter one CLF deep NEG see bottom black.hole in
'As soon as (you) turned around, (you) fell into a bottomless black hole.'

Moreover, [Theme *luò/diào rù* Loc-NP] predominantly conveys non-literal use, although *luò* and *diào* differ in the diversity of their collocation patterns. Almost all the tokens of non-literal *diào* occur in the collocation patterns [human Theme V *rù*　陷　阱 *xiànjǐng* 'trap' /diverse Loc-NP], which again confirms the comparatively restricted non-literal use of *diào*. In comparison, non-literal *luò* also occurs in the two collocation patterns, although the Loc-NPs include the idiom-related lexeme *shǒu* 'hand'. In fact, *luò/diào rù xiànjǐng* 'trap' also corresponds to the English idiom *fall into the trap*, which indicates the idiomatic use of both verbs. However, the higher co-occurrences of *luò* in [Theme *luò* Cov/Dir Loc-NP] with more idiom-related Loc-NPs, including *hòu(miàn)* 'the back', *shǒu* 'hand', and 窠臼 *kējiù* 'stereotype', reveal its broader use in idiom-like phrases. Furthermore, *luò* mostly occurs with an abstract Theme and various Loc-NPs, which also substantiates the diversity of the collocational patterns of non-literal *luò*. Like [human Theme non-literal *luò dào* Loc-NP], [abstract Theme *luò rù* Loc-NP] also includes *shǒu* 'hand' and other types of Loc-NPs, which again respectively exemplify semantic narrowing and broadening of *luò*:

(12) [abstract Theme non-literal *luò rù* Loc-NP]

a. 當時　　東周　　的　天子　名存實亡，　　　權力　落　入

dāngshí　dōngzhōu　de　tiānzǐ míngcúnshíwáng　　quánlì luò rù

meanwhile PN　　GEN emperor name.exist.reality.die　power fall enter

諸侯　　手　　中，如　齊、魯　等　國。

zhūhóu shǒu zhōng　rú　qí　lǔ　děng guó

vassal　hand　in　like PN PN so.on nation

'Meanwhile, the emperor of Dongzhou lost his power, and the vassals of the nations such as Qi and Lu had real power to rule.'

b. 他們　　心念　沒有　　動，　不　落　入　善、不　落　入　惡。

tāmen xīnniàn méiyǒu dòng　bù　luò rù shàn bù luò rù　è

3PL　　mind　　NEG　move NEG fall enter good NEG fall　enter evil

'Their　mind does　not change, and it does not turn good or evil.'

The above examples also indicate that [Theme *luò/diào* Dir Loc-NP] features the wholeness rather than componentiality of the Themes, and that the motion is discrete and punctual, as is found in [Theme *luò/diào* Cov Loc-NP]. Moreover, [Theme *luò/diào* Dir Loc-NP] mostly signifies a prospective viewpoint, with the motion event as the later event.

In terms of genres, [Theme *luò/diào* Dir Loc-NP] is mostly found in news reports like [Theme *luò/diào* Cov Loc-NP]. The spoken data of both verbs, scarce as they are, again reveal a discrepancy: half of the tokens of *luò* are distributed in this pattern (e.g. (12b)), while none of *diào* is found. This indicates that *luò* in spoken data is preferably used in a pattern with a Loc-NP while *diào* is not. Nevertheless, as with [Theme *luò* Cov Loc-NP], all the spoken data of [Theme *luò* Dir Loc-NP] are also from speeches that can be similar to written texts. This suggests that *luò* is barely used in natural spoken language.

The distribution of [Theme *luò/diào* Dir Loc-NP] in terms of use and written/spoken data is summarized in Table 4:

Table 4. Distribution of [Theme *luò/diào* Dir Loc-NP]

	Use		*luò*	%	*diào*	%
literal	nature-related motion	written	10	9%	3	4%
		spoken	0	0%	0	0%
	human-related motion	written	8	7%	28	36%
		spoken	0	0%	0	0%
	others	written	2	2%	6	8%
		spoken	0	0%	0	0%
non-literal	idiomaticization	written	34	29%	16	21%
		spoken	0	0%	0	0%
	semantic extension	written	52	45%	25	32%
		spoken	10	9%	0	0%
Total			116	100%	78	100%

4.1.3 [Theme *luò/diào xià*]

This pattern characterizes direction and path of the motion without identifying its destination, and thus it delineates an unbounded motion and windows the medial process. *Diào* displays a rare occurrence in this pattern, and this shows that it does not highlight the medial process of motion and mark unboundedness while *luò* does.

In terms of collocation with the Themes, almost all of the tokens of *luò* and *diào* occur with Themes representing concrete entities and convey literal use, as exemplified in (13). Moreover, all the examples are reported in a prospective direction. However, (13) also indicates the difference between *luò* and *diào* as found in [Theme *luò/diào* Dir Loc-NP]: *luò* exhibits a stronger association with naturalness and steadiness, and it concerns meteorological conditions and registers multiplicity of the Themes, while *diào* features human activity and abruptness, and its Themes feature separateness.

(13) [Theme *luò xià*]

a. 小雨　　落　下　　　時　　我 只好　向　妳　的　背影　　　説　　再見。

　　xiǎoyǔ luò xià　　shí　wǒ zhǐhǎo xiàng nǐ de bèiyǐng　　shuō zàijiàn

　　sprinkle fall descend moment 1SG have.to face 2SG GEN view.of.the.back say goodbye

　　'When the sprinkle fell, I had no choice but to say goodbye to the view of your back.'

b. 手　一　鬆，　往　後　翻滾，魚槍　掉　下。

shǒu　yī　sōng　wǎng　hòu　fāngǔn　yúqiāng　diào　xià

hand once loose toward back roll   spear.gun fall descend

'(His) hands got loose, (he) rolled backward, and the spear gun dropped.'

The distribution of [Theme *luò/diào xià*] is displayed in Table 5. In terms of genres, the low occurrence of *diào* in this pattern does not show a tendency, while *luò* is predominantly distributed in news reports, as found in 4.1.1-4.1.2.

Table 5. Distribution of [Theme *luò/diào xià*]

	Use		*luò*	%	*diào*	%
literal	nature-related motion	written	26	54%	0	0%
		spoken	0	0%	0	0%
	human-related motion	written	19	40%	2	67%
		spoken	0	0%	0	0%
	others	written	1	2%	1	33%
		spoken	0	0%	0	0%
non-literal	idiomaticization	written	0	0%	0	0%
		spoken	0	0%	0	0%
	semantic extension	written	2	4%	0	0%
		spoken	0	0%	0	0%
Total			48	100%	3	100%

4.1.4 [Theme *luò/diào* Dircompound]

The directional compounds with *luò/diào* include 下來 *xiàlái* 'come down', 下去 *xiàqù* 'go down', 進去 *jìnqù* 'go in' , 出來 *chūlái* 'come out', and 起來 *qǐlái* 'come up', with *xiàlái* being most frequent in this construction. Almost all the tokens of *luò* in this pattern occur with *xiàlái*, while *diào* occurs with the first four. The diversity of the compounds with *diào* reveals the broader use of *diào* in this construction.

The Dircompound with *luò/diào* tends to denote a downward motion toward a perceiver, which implies boundedness of the motion and highlights the final process of motion. Moreover, almost all of the co-occurrences of *luò/diào* with the Themes express real motion and literal use,

and the motion features discreteness and a prospective perspective and concerns a whole Theme. However, further exploration of the Theme types again shows the distinction between *luò* and *diào*: *luò* signals naturalness, while *diào* concerns human participation, as illustrated in (14). The collocate 要 *yào* 'be about to' in (14b) also registers imminence, which is found in [Theme *diào zài* Loc-NP].

(14) [Theme *luò/diào xiàlái*]

a. 雨，好不容易　　開始　落　下來。

  yǔ　hǎobùróngyì　kāishǐ　luò　xiàlái

  rain　finally　　begin　fall　come.down

'The rain finally started falling down.'

b. 我　耳朵　鼻子　都　凍　得　要　　掉　下來　　啦。

  wǒ　ěrduo　bízi　dōu　dòng　de　yào　　diào　xiàlái　　la

  1SG ear　nose　both freeze DE be.about.to fall come.down UFP

'Both my ears and nose are freezing and they are about to drop down!'

In terms of genres, [Theme *luò* Dircompound] does not show a tendency since it is distributed in various written texts such as news reports, narratives, and comments, while [Theme *diào* Dircompound] is predominant in narratives. As the written and spoken data of the two verbs are further examined, no spoken data of *luò* is found in this pattern, while over half of the spoken data of *diào* are distributed in this pattern. Moreover, as with those in [Theme *diào* Cov Loc-NP], they are all from conversations. This indicates that *diào* is preferred to *luò* in oral descriptions of downward motion.

The distribution of use and written/spoken data of [Theme *luò/diào* Dircompound] is displayed in Table 6:

Table 6. Distribution of [Theme *luò/diào* Dircompound]

	Use		*luò*	%	*diào*	%
literal	nature-related motion	written	10	67%	7	10%
		spoken	0	0%	0	0%
	human-related motion	written	3	20%	38	56%
		spoken	0	0%	8	12%
	others	written	0	0%	9	13%
		spoken	0	0%	0	0%

Table 6. Distribution of [Theme *luò/diào* Dircompound]（續）

	Use		*luò*	*%*	*diào*	*%*
non-literal	idiomaticization	written	0	0%	0	0%
		spoken	0	0%	0	0%
	semantic extension	written	2	13%	3	4%
		spoken	0	0%	3	4%
Total			15	100%	68	100%

4.1.5 [Theme *diào* Quantity]

The quantity complement is found exclusively in the data of *diào*. Almost all the Themes with *diào* are abstract, and [abstract Theme *diào* Quantity] describes a loss of part of the Theme, and the complement represents a number and emphasizes the extent of the loss, as demonstrated in (15). In other words, *diào* is used to profile componentiality of the Theme, which is not found in *luò* since the substitution of *luò* for *diào* in the same pattern is not unacceptable.

(15) [abstract Theme *diào* Quantity]

唱片	業	去年	業績		掉/* 落	了	10%。
chàngpiàn	yè	qùnián	yèjī		diào luò	le	10%
record	industry	last.year	sales.performance	fall	fall	ASP	

'The sales in the record industry dropped by 10% last year.'

In terms of registers and genres, [Theme *diào* Quantity] is found in both written and spoken texts. The written texts are news reports, while the spoken data are speech excerpts, in which *luò* in other sub-patterns is also found. This shows that the unique occurrence of [Theme *diào* Quantity] is not related to registers or genres.

The distribution of use and register of [Theme *diào* Quantity] is summarized in Table 7:

Table 7. Distribution of [Theme *diao* Quantity]

Use			*diào*	*%*
literal	nature-related motion	written	0	0%
		spoken	0	0%
	human-related motion	written	0	0%
		spoken	0	0%
	others	written	0	0%
		spoken	0	0%
non-literal	idiomaticization	written	0	0%
		spoken	0	0%
	semantic extension	written	5	63%
		spoken	3	38%
Total			8	100%

4.2 [Theme *luò/diào*]

In this syntactic pattern, *luò* and *diào* occur as a stand-alone verb. In [Theme *luò/diào*], almost all the tokens are in literal use, and both *luò* and *diào* mostly illustrate discrete and bounded motion of a whole entity, as demonstrated in (16). However, the Themes with *luò* and *diào* in this pattern again indicate different semantic tendencies: the Themes with *luò* feature naturalness, while those with *diào* concern a human participant.

(16) [Theme *luò/diào*]

a. 花　落　了　為什麼　會　再　開？

　　huā　luò　le　wéishíme　huì　zài　kāi

　　flower fall ASP why　will again blossom

　　'Why do flowers fall and blossom again?'

b. 牙　掉　了　嗎？

　　yá　diào　le　ma

　　tooth fall ASP UFP

　　'Did the tooth fall?'

Moreover, *luò* is different from *diào* in that over half of its tokens occur in a parallel structure, as presented in (17), while [Theme *diào*] is not found in such a structure. In a parallel structure, [Theme *luò*] behaves like an idiom or a poem, and the motion encoded by *luò* is rhythmic. The occurrence of *luò* in idiom-like expressions shows a connection with idiomaticization, although the meaning of *luò* is not weakened.

(17) [Theme *luò*] in a parallel structure

a. 汗水　　涔涔，髮　散　釵　落。

hànshuǐ céncén fǎ sàn chāi luò

sweat　　drip　hair spread hairpin fall

'The sweat dripped, the hair spread, and the hairpin fell down.'

b. 汗滴　　如　雨落，　氣喘　若　風　吼。

hàndī　　rú　yǔ luò qìchuǎn ruò fēng hǒu

sweat.drop like rain fall　pant　　like wind　roar

'Their sweat was dropping like the rain, and their panting was like the roaring of the wind.'

Moreover, [Theme *luò*] can occur with a Loc-NP, while [Theme *diào*] is rarely found in such a sub-pattern. [Theme *luò* Loc-NP] conveys literal and non-literal use. Nevertheless, its use is restricted in that half of its tokens function as idiom-like expressions or relate to the compound 落後 *luòhòu* 'fall behind', as presented in (18).

(18) [Theme *luò* Loc-NP]

a. 雨　落 姑蘇 特別　　美。

yǔ　luò gūsū tèbié　　měi

rain fall PN particularly beautiful

'The rain scene in Gusu is particularly beautiful.'

b. 產業　　集團 護　盤　　動作，亦 不 落 電子　集團 之　後。

chǎnyè jítuán hù　pán　dòngzuò yì　bù luò diànzǐ jítuán zhī　hòu

industry group support market act　　also NEG fall electronics group GEN back

'The industrial group did not fall behind the electronics group in supporting the stock market.'

The distinction between *luò* and *diào* in terms of naturalness and human activity is again confirmed in [Theme V], as shown in Table 8. In addition, almost all of the occurrences occur in

written texts. Nearly half of the examples of [Theme *luò*] occur in news reports, while [Theme *diào*] does not show a tendency in its genre distribution.

Table 8. Distribution of [Theme *luò/diào*]

Use			*luò*	%	*diào*	%
literal	nature-related motion	written	15	38%	1	5%
		spoken	0	0%	0	0%
	human-related motion	written	9	23%	15	79%
		spoken	2	5%	0	0%
	others	written	1	3%	1	5%
		spoken	0	0%	0	0%
non-literal	idiomaticization	written	5	13%	0	0%
		spoken	0	0%	0	0%
	semantic extension	written	8	20%	1	5%
		spoken	0	0%	1	5%
Total			40	100%	19	100%

4.3 [*Luò/diào* Theme]

[*Luò/diào* Theme] is found in three constructions: (1) existential, (2) possessive, and (3) subject-less. Both existential and possessive constructions include a pre-verbal NP. The difference between them is that the NP in an existential construction signals time or space, and its collocation with the verb and Theme introduces appearance of an entity somewhere/sometime, while the NP and Theme in a possessive construction form a possessor-possession relation, as illustrated in (19)-(20).

(19) [*luò/diào* Theme] in an existential construction

a. 這裡　已　落　過　兩　　場　　雪。
zhèlǐ　yǐ　luò　guò　liǎng　chǎng　xuě
here　already fall　ASP two　CLF　snow
'It has snowed here twice.'

b. 兩　　手　　空空　　也　就　只　能　坐　等　天上　　掉　鋼錠
liǎng shǒu　kōngkōng　yě　jiù　zhǐ néng zuò děng tiānshàng diào gāngdìng
two　hand　empty　also just only can　sit　wait　sky　　fall steel.ingot

下來。
xiàlái
come.down
'With both hands empty, (they) can do nothing but sit and wait for steel ingots to fall from the sky.'

(20) [*luò/diào* Theme] in a possessive construction

a. 園子 裡 的　雞翅木 落 過 不 知　多少　次 葉。
　 yuánzi lǐ de　jīchìmù luò guò bù zhī duōshǎo cì yè
　 garden in ASSOC　wenge fall ASP NEG know how.many time leaf
　 'How many times have the leaves of the wenge in the garden fallen?'

b. 那時　每天　洗頭　就 會　掉 一 堆　頭髮，自己 看 了　都　怕！
　 nàshí měitiān xǐtóu　jiù huì diào yī duī tóufǎ　zìjǐ kàn le dōu pà
　 then every.day wash.hair then will fall one CLF hair　oneself see ASP also scared
　 'At that time, (I) would lose lots of hair when I washed my hair, and I got scared when seeing it.'

In fact, existential and possessive constructions differ in their characterization of Themes and distance. In terms of Themes, an existential construction introduces the emergence of a whole entity, while a possessive construction profiles the componentiality of the Theme, since the Theme forms a part-whole relation with the pre-verbal NP. In terms of distance, an existential construction presents a motion somewhere/sometime, and thus the motion is distal. In contrast, a possessive construction indicates the closeness of an object to its possessor, and thus the motion is perceived to be proximal to the possessor.

As the distributions of *luò* and *diào* in existential/possessive constructions are examined, discrepancies are observed: *luò* dominates in existential constructions while *diào* predominates in possessive constructions. The discrepancies suggest that *luò* emphasizes the wholeness of the Themes and a distal motion, while *diào* characterizes the componentiality of the Themes and a proximal motion. Moreover, the distinctive features of *luò* and *diào* in characterizing physical motion are similar to those found 4.1-4.2.

In a subject-less construction, the pre-verbal NP as the subject is left empty. In our data, only *luò* is found in this construction, as demonstrated in (21). Note that 冰 雹 *bīngbáo* 'hail' is not the object of the verb and that it does not obtain accusative case. However, unlike sole arguments of unaccusative verbs in English, which move to the subject position to obtain case, the post-verbal Theme of *luò* is allowed to remain in situ. In fact, Lien (2003) also finds the

equivalent of *luò* in Southern Min in the subject-less construction. Nevertheless, whether this pattern makes a distinction between *luò* and *diào* requires more data for further research.

(21) [*luò* Theme] in a subject-less construction

落　冰雹　啦！

luò bīngbáo la

fall hail UFP

'It's hailing!'

Table 9 summarizes the distribution of *luò/diào* in these three constructions and their distinctive uses. The distributional differences are unrelated to registers or genres in that all the examples of [*luò/diào* Theme] are found in written texts, narratives in particular.

Table 9. Distribution of [*luò/diào* Theme]

Construction		Use	*luò*	%	*diào*	%
existential	literal	nature-related motion	6	40%	1	3%
		human-related motion	1	7%	1	3%
		others	1	7%	6	17%
	non-literal	idiomaticization	0	0%	0	0%
		semantic extension	1	7%	0	0%
possessive	literal	nature-related motion	1	7%	2	6%
		human-related motion	1	7%	23	64%
		others	0	0%	2	6%
	non-literal	idiomaticization	0	0%	0	0%
		semantic extension	0	0%	1	3%
subject-less	literal	nature-related motion	1	7%	0	0%
		human-related motion	0	0%	0	0%
		others	3	20%	0	0%
	non-literal	idiomaticization	0	0%	0	0%
		semantic extension	0	0%	0	0%
Total			15	100%	36	100%

5. General discussion

We have compared unaccusative *luò* and *diào* in terms of syntactic patterns, semantic properties of their collocates, literal/non-literal use, and genres. The analysis not only presents overlapping uses between *luò* and *diào*, which indicates that the meanings of near-synonyms are not absolutely clear-cut and that fuzziness must exist, but also unveils the nuances between the two verbs. Table 10 summarizes their similarities and distinctive differences.

Table 10. Comparison between *luò* and *diào*

Category / Verb		*luò*	*diào*	Example
syntactic structure	[Theme V Cov/Dir Loc-NP]	✓	✓	幾片樹葉落在江上 *jǐ piàn shùyè luò zài jiāng shàng* 'Several leaves fell onto the river' 花剛巧落進路溝 *huā gāngqiǎo luò jìn lùgōu* 'The flower accidentally fell into the gutter' 錢包掉在車上 *qiánbāo diào zài chē shàng* 'The wallet was left behind in the car' 那頭皮屑都掉進飲料裡了 *nà tóupíxiè dōu diào jìn yǐnliào lǐ le* 'The dandruff fell into the drink'
	[Theme V *xià*]	✓		靜靜的雨落下 *jìngjìng de yǔ luò xià* 'The quiet rain fell down'
	[Theme V] in parallel structures	✓		髮散釵落 *fǎ sàn chāi luò* 'The hair spread, and the hairpin fell down'
	[V Theme] in existential constructions	✓		落冰雹啦 *luò bīngbáo la* 'It is hailing'
	[Theme V Dircompound]		✓	我眼淚差點掉下來 *wǒ yǎnlèi chādiǎn diào xiàlái* 'My tears almost fell down'
	[Theme V]		✓	牙掉了嗎？ *yá diào le ma* 'Did the tooth fall'
	[V Theme] in possessive constructions		✓	她才知道自己掉了淚 *tā cái zhīdào zìjǐ diào le lèi* 'And she realized she was crying'

Table 10. Comparison between *luò* and *diào*（續）

Category \ Verb		*luò*	*diào*	Example
semantic property of Theme	[+ natural] [- human-related] [- concrete]	✓		靜靜的<u>雨落</u>下 *jìngjìng de yǔ luò xià* 'The quiet rain fell down' 家計就<u>落</u>在內人身上 *jiājì jiù luò zài nèirén shēn shàng* 'The (burden of) livelihood fell onto my wife'
	[- natural] [+ human-related] [+ concrete]		✓	錢包<u>掉</u>在車上 *qiánbāo diào zài chē shàng* 'The wallet was left behind in the car'
genre	written — news report	✓		從此羅<u>馬落</u>入西歌德人手中 *cóngcǐ luómǎ luò rù xīgēdérén shǒu zhōng* 'Rome fell into the Visigoths' hands from then on'
	written — narrative	✓	✓	我發覺<u>落</u>入了她的圈套 *wǒ fājué luò rù le tā de quāntào* 'I found (I) had fallen for her trick' 公主<u>掉</u>進了巫婆的陷阱裡 *gōngzhǔ diào jìn le wūpó de xiànjǐng lǐ* 'The princess fell into the witch's snare'
	spoken — conversation		✓	我只是不要讓麵包屑<u>掉</u>下來啊 *wǒ zhǐshì bùyào ràng miànbāoxiè diào xiàlái a* 'I just try not to let the crumb fall'
	spoken — monologue	✓		他們心念沒有動，不<u>落</u>入善、不<u>落</u>入惡 *tāmen xīnniàn méiyǒu dòng bù luò rù shàn bù luò rù è* 'Their mind does not change or turn good or evil'
others	idiomatic use	✓		權力<u>落</u>入諸侯<u>手中</u> *quánlì luò rù zhūhóu shǒu zhōng* 'Power fell into the vassals' hands'
	semantic extension	✓		家計就<u>落</u>在內人身上 *jiājì jiù luò zài nèirén shēn shàng* 'The (burden of) livelihood fell onto my wife'
	abruptness/ immediacy		✓	那個瓦盆忽然從他手上<u>掉</u>進河心 *nàge wǎpén hūrán cóng tā shǒu shàng diào jìn hé xīn* 'The earthen pot suddenly fell out of his hand and into the center of the river'

The syntactic structures and semantic properties of Themes and other collocates reflect how the motions encoded by *luò* and *diào* are conceptualized. In the syntactic structures, they characterize discrete motion. [Theme V Cov/Dir Loc-NP] is the prevalent pattern of both verbs, and it not only profiles punctual motion and its final process but also specifies the elements that are highlighted in motion events, including Theme, direction, path, and Loc-NP. In this pattern, *luò* and *diào* exhibit a difference in perspective direction: the motion event of *luò* is reported from a prospective viewpoint, while that of *diào* is viewed in a prospective or a retrospective direction. Moreover, the distributions of *luò/diào* in the other syntactic patterns also suggest their differences. [Theme V *xià*] and [Theme V Dircompound] distinguish between the medial/final process of motion and boundedness/unboundedness, [Theme V] in parallel structures signifies the rhythmic manner of motion, and [V Theme] in existential/possessive constructions manifests differences in the distance of the motion and the wholeness/componentiality of the Themes. With regard to the semantic properties of the Themes and other collocates, they outline the distinctive types of Themes with *luò/diào* and manner of the motion.

The present study adopts seven categories from Talmy's (2000) Conceptual Structuring System to explicate the construal of motion encoded by *luò* and *diào*, including dividedness, boundedness, manner, distance, direction of viewing, pattern of attention, and the types of the Agonist and Antagonist, i.e., Theme and cause of its motion, in the force-dynamics. The characteristics of the motion encoded by *luò* and *diào* are compared in Table 11:

Table 11. Characteristics of motion encoded by *luò* and *diào*

Category	Verb	*luò*	*diào*
dividedness		discrete	discrete
degree of extension		point, unbounded	point, bounded
manner		smooth, steady, rhythmic	abrupt, imminent
perspectival distance		distal	proximal
perspectival viewpoint		prospective	prospective, retrospective
pattern of attention	focus of attention	Theme, direction, path, Loc-NP	Theme, direction, path, Loc-NP
	window of attention	medial, final processes	final process
	level of attention	wholeness of Theme	wholeness/componentiality of Theme

Table 11. Characteristics of motion encoded by *luò* and *diào*（續）

Category / Verb	*luò*	*diào*
force-dynamics	Agonist: inanimate natural entities Antagonist: natural force	Agonist: humans/human-related entities Antagonist: human force

The categories represent the distinctive features of *luò* and *diào*. *Luò* prototypically portrays a distal steady motion of a whole natural entity caused by natural force in a prospective direction. The motion can be punctual or unbounded; the punctual motion accentuates the final process while the unbounded motion profiles the medial process. In contrast, *diào* delineates a proximal, abrupt, and punctual/bounded motion of a human-related entity caused by human force in a prospective/retrospective direction, and tends to window the final process. The motion engages the whole entity or part of it.

As we take a close look at Table 11, we find *luò* and *diào* share common features in most of the categories and that manner, perspectival distance, and force-dynamics are the three categories that distinguish the two verbs. This indicates that not all the categories in the Conceptual Structuring System are equally crucial in distinguishing near-synonyms. The manners of *luò* and *diào* can be distinguished by the semantic feature of abruptness, and the distance of the two verbs can be differentiated by the feature of proximity.

Force-dynamics is a broad category and helps little to differentiate *luò* and *diào*, although the present study finds that the two verbs reveal distinctive characteristics in types of Themes and cause of the motion. In collocation with Themes, *luò* features naturalness since it tends to illustrate meteorological conditions while *diào* tends to depict motion of humans or artifacts. In fact, the feature of naturalness in *luò* is also noted in Lien (2003), Dong, Yang, Ren, and Huang (2021), and Huang, Dong, Yang, and Ren (2021). Lien mentions the meteorological conditions described by the equivalent of *luò* in Southern Min in subject-less constructions, and both Dong et al. and Huang et al. identify *luò* as one of the verbs used in weather expressions, and this confirms that *luò* is used in a particular motion event and that naturalness is one of its distinctive features. Furthermore, since *luò* portrays precipitation, which is conceptually associated with a great amount, the Agonist of *luò* also registers multiplicity. In terms of cause of motion, the present study identifies naturalness as the distinctive feature of the force that enables the motion: the force in the case of *luò* is [+ natural], whereas that in case of *diào* is [- natural]. The identification of the force is dependent upon the features of the Agonist and the contexts, which

indicates that the collocates are not the only factor that determines the semantic features of the verbs. The parameters that manifest the subtle differences between *luò* and *diào* are shown in Table 12. Nevertheless, further studies are needed to examine which categories are the distinctive features of near-synonyms in Mandarin Chinese or other languages.

Table 12. Distinctive semantic features of *luò* and *diào*

Feature \ Verb	*luò*	*diào*
abruptness	-	+
proximity	-	+
naturalness	+	-

The present study also reveals another finding that cannot be accounted for by Talmy's system, i.e., the parallel structures, which is the unique syntactic pattern of *luò*. It is found that parallel structures are associated with literary works in Chinese, such as idioms and poetry, and thus the unique occurrence of *luò* in such structures suggests its connection with Chinese literature. Si and Kholkina (2020) conduct a diachronic study of verbs of falling in Chinese and find that the literal use of *luò* to describe motion of leaves or flowers has been in existence for almost three thousand years. Moreover, Liu, Mazanec, and Tharsen (2018) investigate Chinese poetry covering the years 1046 BCE to 1644 CE in terms of aesthetic expressions and personal styles. In the data they present, *luò* rather than *diào* is found. These studies suggest that the different uses of near-synonyms can be attributed to a cultural factor.

Also, this research explores the difference in *luò* and *diào* in terms of genres, which is not noted in previous studies, and observes their difference in their distribution in spoken texts. Spoken data of *luò* are mostly found in speeches and in the pattern [Theme V Cov/Dir Loc-NP], while spoken data of *diào* dominantly occur in conversations and in [Theme V Dircompound]. Since speeches use formalized language, which can be close to written language, while conversations are spontaneous spoken language, the prevalence of *diào* in conversations suggests its stronger association with natural spoken language. In fact, in Lin and Nicoladis's (2018) study of motion lexicalization in Chinese among heritage language speaking children, *diào* rather than *luò* is used to describe motion events. The finding supports the present research, although further investigation of spoken data of *luò* and *diào* is required for more evidence.

Moreover, this paper argues for semantic change of *luò*. In the findings, *luò* exhibits prevailing non-literal use while *diào* shows the opposite. The non-literal use of *luò* is

mostly found in [Theme V Cov/Dir Loc-NP]. In this pattern, *luò* tends to occur in idiom-like expressions, e.g., [Theme *luò shǒu* 'hand'/*hòu(miàn)* 'the back'/*xiànjǐng* 'trap'/*kējiù* 'stereotype'] or with diverse types of Themes and Loc-NPs. In these two collocations, the literal meaning of *luò*, i.e., natural, smooth, and steady motion, has been weakened. However, the semantic weakening of *luò* leads to meaning change in two opposing directions: narrowing and broadening. In idiomatic use, on one hand, the meaning of *luò* is narrowed since it is fused into the whole chunk, which carries a fixed meaning. In collocation with recurring or diverse types of Themes and Loc-NPs, on the other hand, the meaning of *luò* is broadened since it exhibits extended meanings of downgrade, coercion, speculation, or bespeaks a development of an event into a different condition.

Semantic narrowing and widening of *luò* is motivated by the mechanism of metaphor whereby the downward motion transfers from concrete to abstract and expresses restricted or extended meanings, which are related to its literal meaning. In the case of semantic narrowing, the idiomatic use of *luò* embodies the physical downward motion onto/into one's hands, the back position, a trap, or the same path. The conception contributes to the fixed meanings of being in one's control, being inferior, being tricked, and following the same pattern respectively. In the case of semantic widening, the meaning of downgrade relates to movement from a higher to a lower position; the meaning of coercion cognitively corresponds to movement of natural entities, such as snow and rain, from a higher point onto the human upper body, which is at a lower point and immediately affected by the contact. The meaning of speculation is associated with the natural movement depicted by literal *luò*. Since the movement relates to entities such as snow and leaves, its course is erratic and unpredictable, and thus the landing site is uncertain and can only be speculated, and the meaning of speculation transfers to *luò*. The use of *luò* to suggest development into a different state is associated with its literal meaning of steady motion to an endpoint.

The difference between *luò* and *diào* in their extent of semantic change as a verb of falling indicates that near-synonyms are not in sync when their meanings start changing, i.e., the change does not occur at the same time, at the same speed, or in the same direction. In fact, the grammaticalization of *diào* in a V-*diào* construction has long been studied (周, 1999, Cheng, 2004, 單, 2006, 劉, 2007, Chen, 2014, 曹, 2017, Jing, 2020). It is apparent that *luò* "follows in the footsteps" of *diào* and also embarks on the journey of semantic change. Moreover, the uses of *luò* indicate that it serves as the equivalent of the English verb *fall*. In the equivalents of the idioms related to *fall*, including *fall behind/into one's hands/into the trap*, *luò* is the corresponding verb and conveys idiomatic use. The use of *luò* to signal a transition to a different

condition is also found in the use of *fall*. *Fall* serves as a linking verb when it is followed by an adjective (e.g., *fall asleep, fall ill*) or a prepositional phrase (e.g., *fall into decay, fall under the influence of*). This suggests that *luò* has lost its status as a motion verb and functioned as a linking verb when it is in non-literal use. Furthermore, the opposing behavior of *luò*, i.e., idiomaticization and semantic extension is worthy of note. Since semantic extension concerns novel use of a lexical item, it should occur later than the idiomatic use. Thus, it can be that *luò* has broken free of its restrictive use and found its way to semantic extension. How far it can go requires further research.

6. Conclusion

This research compares *luò* and *diào*, two most frequent verbs of falling on the Mandarin Frequency lists provided by Academia Sinica, by examining data from Sinica Corpus 4.0. Both verbs convey unaccusative and unergative uses, and the current study investigates their predominant unaccusative use. The analysis examines the two verbs in three syntactic constructions: [Theme V complement], [Theme V], and [V Theme] and their sub-patterns and look into the semantic properties of their collocates and their genre distributions to find their distinctive uses.

The three constructions distinguish the motions denoted by *luò* and *diào* in terms of boundedness, distance, which process of motion is accentuated, and whether a whole Theme or part of the Theme is profiled. The collocates of *luò* and *diào* unveil more of their distinctive characteristics: *luò* features steadiness, distance, and concerns natural force, while *diào* underlines abruptness, proximity, and pertains to human participation. Moreover, the examination of the interaction between the constructions and the collocates indicates the prevailing non-literal use of *luò* in [Theme V complement]. Non-literal *luò* exemplifies idiomaticization and semantic extension, both of which reflect semantic change of *luò*. The meaning of *luò* is narrowed in idiomatic use and broadened in the collocation of the verb with diverse Themes and Loc-NPs. The study adopts the categories in Talmy's (2000) Conceptual Structuring System to tease out the nuanced difference between *luò* and *diào* from a cognitive perspective and further identifies abruptness, proximity, and naturalness as the three crucial features to distinguish *luò* and *diào*. The present study also points out the different uses of *luò* and *diào* related to Chinese culture and genres. Moreover, this research discusses the role of metaphorical extension in the semantic change of *luò*. The findings are expected to pave the way for further studies of other verbs of downward motion to expand the scope of investigation.

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