The Excessive Structural Article in Mandarin－ Study of *dao*（到）[*]

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Abstract. The present paper targets on the excessive structural article *dao* in the "X[1] + *dao* + *si*" phrases, aiming to see the possible generation of the excessive meaning. The generation of excessiveness will be analyzed from the aspect of cognition, including conceptual structure and metaphor. It will be concluded that the position indicated by *si* in concept plays a crucial, which then tells the importance of collocation. What is more, the comparison of *dao* and Southern Min *kah* will be made to see the degree of grammaticalization of *dao*.

Keywords: excessive structural article, conceptual structure, metaphor

1. Introduction

It is not easy to explain "extent" since it is somewhat abstract; however, extent seems to exist in our daily lives. Everything bears a relation to extent: the redness of roses, the extent of saltiness, or even the maturity of a man. Mentioning extent, *hen* is always the term for use in Mandarin, such as *Ta hen mei 她很美* (She is very beautiful). However, *hen* cannot indicate the highest extent. To show excessiveness, there is a construction which is popular with the young generation in Taiwan nowadays. The excessive construction is structured as "X + *dao* + *si*", and it pragmatically emphasizes the speaker's subjective emotion.

(1) 我 今天 累 到 死
    wo jin-tian lei dao si
    I today tired DAO die   "I'm extremely tired today."

The phrase is always used to indicate the very high extent of a certain state; therefore, we name the construction "the excessive construction" and *dao* the excessive structural particle, which appears in sentences mainly to link the word or phrase that precedes it to the elements that immediately follows it. In example (1), *dao* links the predicate *lei* and the complement *si*.

As for the excessive construction, *dao* is worthy of discussion. *Dao* originally is a spatial term indicating "arrive at". Since we failed to find *dao*'s use as an extent marker in ancient Mandarin, it might be until this modern time it is used to indicate excessive extent. How could a spatial term derive extent meaning? In addition, *dao* is not obligatory; that is, it could be omitted.

(2) 我 今天 累 死 了
    wo jin-tian lei si le
    I today tired die ASP   "I'm extremely tired today."

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[1] The symbol X refers to either a verb or an adjective.

As a result, there is coexistence of "X *dao si*" and "X *si*". Does the appearance of *dao* imply some other meaning different from "X *si*"?

The paper works on the excessive structural particle *dao* in Taiwan Mandarin. The data are collected mainly from *google* search engine. The main discussion falls on how *dao* derives from a spatial word to an excessive structural particle. We will look into the conceptual structure of the construction, in hopes to see the operation of human cognition and the generation of excessive meaning. The paper will be organized as follows. Section 2 briefly reviews the literature. The theoretical framework adopted in this paper is introduced in section 3. Section 4 presents the discussion which mainly focuses on the generation of excessive *dao*. A comparison between *dao* and Southern Min *kah* will be made in section 5, and the last section provides a summary and a tentative conclusion.

2. Literature View

The typical structural article in Mandarin is *de*, which has some variants, i.e. 得, 的. According to the discussions on *de*, it could be an extent structural particle, as in the expressions "*Hao de hen* 好得很(Very good)! " Comparing with the great number of papers about *de*, there is no considerable amount of studies regarding the excessive structural particle *dao*, possibly because of the lack of long history. *Dao* as an extent marker is not listed in dictionaries, neither classic nor modern ones. Indeed, the term "excessive structural particle" is first proposed here. As to *dao*, Huang (1984), by looking into modern Mandarin, discusses the extent use of "V(Adj) + *dao* + …" construction. Indicating the reaching to a certain extent, the construction takes the following kinds of predicates.

> A) gradable adjectives
> *leng   qing   dao   le   ji-dian*   冷清到了極點
> cold clear   DAO ASP   very end   "It's extremely desolate."
> B) psych verbs
> *pei-fu   dao   le   ji-dian*   佩服到了極點
> admire DAO   ASP   very end   "admire someone very much"
> C) verbs denoting change or action
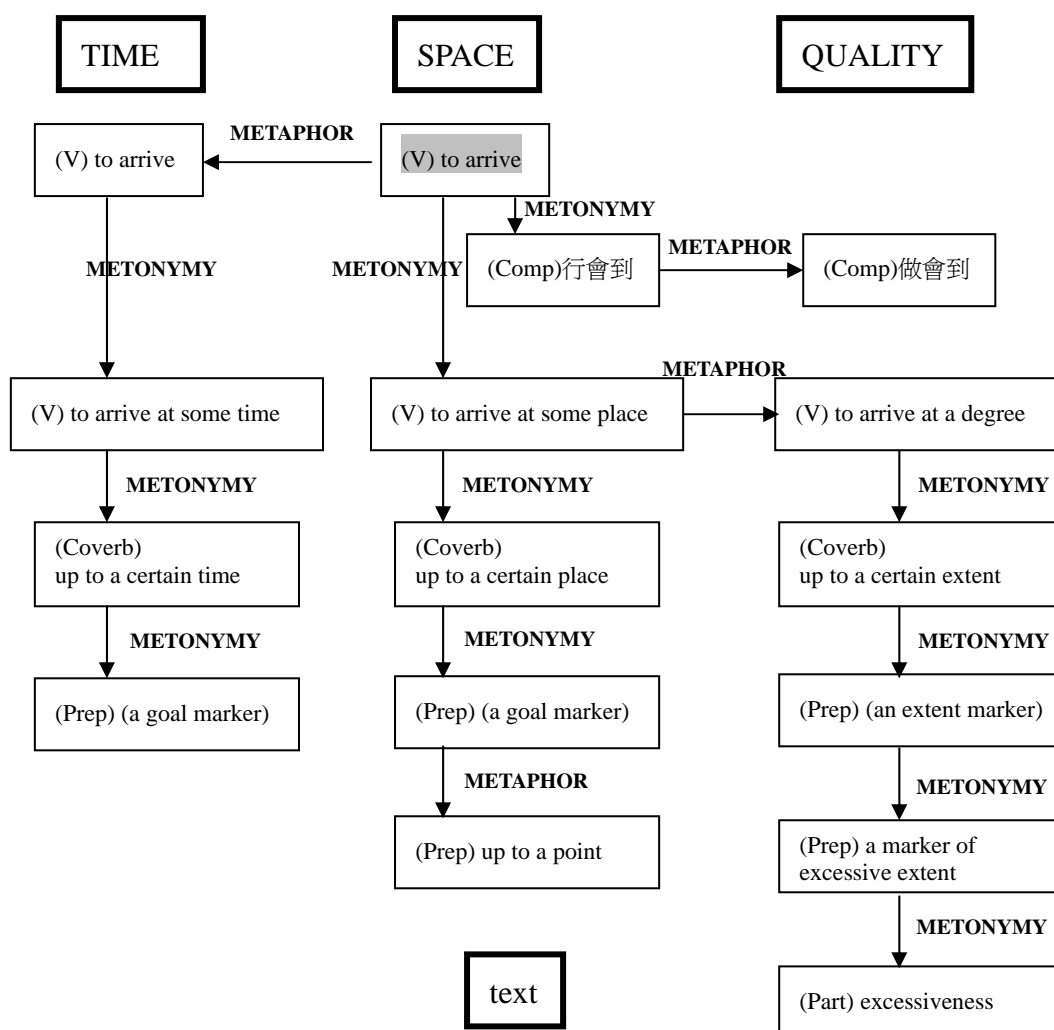> *ji-hua   dao   yi-ding cheng-du le*   激化到一定程度了
> agitate DAO certain extent   ASP   "agitate to some extent"

Liu (2006) studies the degree modification of adjectives in Mandarin Chinese, and the *dao*-clause is discussed. As to the following sentence, Liu states that the *dao*- clause offers an endpoint which is neither temporal nor locative but an extent of height.

> (3) *Yuehan gao dao   keyi   mo   dao   tianhuaban* 約翰高到可以摸到天花板
>   John   tall DAO   able touch-arrive   ceiling
>   "John is tall enough to touch the ceiling."

He treats the *dao*- clause the adjectival construction, and the thesis mainly discusses its interaction with the degree modifier *guo*. His discussion regarding incompatibility of *guo* and the *dao*- clause is not the concern here; however, he contributes to point out that the *dao*- clause displays the properties of a complement and semantically is a "scale adjuster". In addition, the *dao*- clause possesses the ability "to saturate and restrict the degree argument of adjectives and alter the limit of the scale structure of associated adjectives." Li (2006) studies the rich polysemies of the motion verb *kao* in Taiwanese. She offers a complete discussion on the derivations of excessive *kah* from *kao* (see CHART 1), and it reveals that cognitive operations (i.e. metaphor and metonymy) play crucial roles.

CHART 1: Derivations of the motion verb *kao*

TIME	SPACE	QUALITY

```
(V) to arrive  ◄—— METAPHOR ——  (V) to arrive
                                      │ METONYMY
                                      ▼
                                 (Comp)行會到  —— METAPHOR ——►  (Comp)做會到

     │ METONYMY        │ METONYMY                    METAPHOR
     ▼                 ▼                                    
(V) to arrive     (V) to arrive at some place  ——————►  (V) to arrive at a degree
at some time
     │ METONYMY        │ METONYMY                        │ METONYMY
     ▼                 ▼                                  ▼
(Coverb)          (Coverb)                          (Coverb)
up to a certain   up to a certain place             up to a certain extent
time
     │ METONYMY        │ METONYMY                        │ METONYMY
     ▼                 ▼                                  ▼
(Prep) (a goal    (Prep) (a goal marker)            (Prep) (an extent marker)
marker)
                       │ METAPHOR                        │ METONYMY
                       ▼                                  ▼
                  (Prep) up to a point               (Prep) a marker of
                                                      excessive extent
                                                          │ METONYMY
                         text                             ▼
                                                      (Part) excessiveness
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The two papers working on Mandarin point out the extent meaning of *dao*; nonetheless, there is no mentioning of the derivation of excessiveness. To complement this gap, the present study will trace the possible derivational routes of excessive *dao*. Li's analysis of *kah* would be referred. However, in her study, the metaphorical extensions are not presented in details; what is more, collocation is not mentioned in her study. In my opinion, collocation is the key that brings the grammaticalization. Basically, when two or more words appear together with a very high frequency, there will be syntactic or semantic changes of the composed terms. Therefore, in this study, collocation and metaphor extension will be carefully examined. The proposition is: the complement *si* is the key that brings the excessive meaning to *da*o. In concept, *dao* takes *si* as the goal; *si* stands for the very end in conceptual structure (Liu 2006), which further metaphorically means "excessive extent". The high-frequency occurrence of *dao* with *si* later makes *dao* change from a content spatial word to an excessive structural particle.

3. Theoretical Background

Since the conceptual structure of *dao* will be examined first, the introduction of Conceptual Structure is necessary. Conceptual Structure, by definition, is an autonomous level of cognitive

representation (Ray Jackendoff 1983,1987,1990), representing concepts in terms of a small number of conceptual primitives, such as GO, STAY, BE, etc. The theory of conceptual structure is decompositional since it decomposes meanings in terms of conceptual primitives. It is also conceptualist because it identifies meanings with concepts, i.e. mental entities. In addition, in its origin, conceptual structure is localistic, for it elaborates the idea that notions of location and movement are central in the semantic analysis of verbs and sentences. Since the verb indicating "arrive" involves spatial movement, the conceptual structure of it should be examined.

  The theory of metaphor is also necessary for review here, for the conceptual metaphor (Lakoff & Johnson 1980) of *si* will be discussed. In cognitive linguistics, conceptual metaphor refers to the understanding of one conceptual domain in terms of another, for example, we understand time in terms of space (e.g. *Time flies*.) *Si* evokes the concept of life, which is metaphorically regarded as a journey.
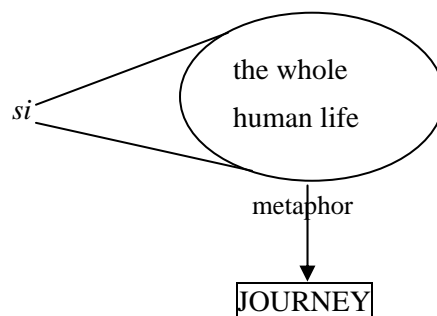
The journey metaphor requires a source and a goal, and it is *si* that plays the role of goal.

     Basically, both *dao* and *si* undergo grammaticalication. In historical linguistics, grammaticalisation refers to a process of linguistic change by which a content word (lexical morpheme) changes into a function word or further into a grammatical affix. It also includes the processes of phonological reduction and semantic bleaching. Therefore, either metaphor or metonymy could be regarded as a kind of grammaticalization since it, most of the time, brings semantic bleaching.

4. Main Discussion
4.1 *Dao*
In Taiwan Mandarin, the phrase X-*dao-si* is popular with the young generation. And in many informal situations, the construction is used to express the highest of a state.

> (4) *jing-ming yi jie   re   dao si*   精明一街熱到死
>   jing-ming first street hot DAO death
>   "It is extremely hot on Jing-ming lst Street.

> (5) *na shi wu-liao dao   si   de   jing-dian*   那是無聊到死的景點
>   that be boring DAO death   tourist place
>   "That is an extremely boring place for visiting."

> (6) *Tou-lan de xia-chang jiu shi qi-mo-kao mang-dao- si* 偷懶的下場就是期末忙到死
>   lazy   outcome   be final exam busy DAO death
>   "Laziness will make you awfully busy during the final exam."

In these expressions, *dao* plays the part of structural particle.
  To trace the origin, *dao*, a motion verb, prototypically refers to "arrive at".

(7) *Wo yi   dao Taipei le*   我已到台北了
    I already DAO   Taipei   ASP   "I've arrived at Taipei."

Through grammaticalization, it also takes the use as a preposition which introduces a goal.

(8) *Ta   zou   dao Taipei.*   他走到台北
    He walk DAO Taipei.   " He walks to Taipei."

By way of metaphor, *dao* then is extended to the temporal domain.

(9) *Ta   deng dao wu   dian*   他等到五點
    He   wait   DAO   five o'clock   "He waited until five o'clock."

This metaphorical extension is a natural process in human cognition. The cognitive process is "concrete ⇨ abstract", and SPACE is a concrete source that further extends to abstract TIME.
  As a motion verb, *dao* basically requires three theta roles. Mostly, motion verbs involve change of position and assign three theta roles: theme, source and goal. Theme is obligatory whereas the other two are optional.

(10) *che zi zou le*   車子走了
The car is gone.   (theme)

(11) *ta   qu   Taipei*   她去台北
She went to Taipei.   (theme, goal)

(12) *ta   li-kai Taipei*   他離開台北
He left Taipei.   (theme, source)

(13) *ta   cong Taipei zou   dao Kaohsiung*   他從台北走到高雄
He walked from Taipei DAO Kaohsiung.   (theme, source, goal)

Without prepositional source and goal assigners (*from, to*), a verb itself also could do the assigning. Some verbs assign SOURCE (e.g. *li-kai* 離開), and some assign GOAL to the objects (e.g. *qu* 去). Adopting Jackendoff's Lexical Conceptual Structures (LCS), a motion verb could be conceptualized as "AGENT MOVE/GO VIA PATH". The path TO highlights the source whereas FROM emphasizes the goal. Based upon Jackendoff's, the conceptual structure of *dao* would be AGENT/THEME MOVES TO A GOAL. As to the goal, it prototypically refers to a concrete location and later metaphorically extends to abstract TIME and STATE.

TIME: (14) *Tie-ta   de shi-jian dao   23:00*   鐵塔的時間到 23:00
            tower   time   DAO   23:00
            "The tower is not closed until 23:00."

STATE: (15) *Ta   dao   lao   dou hai-shi xing-nan* 他到老都還是型男
            he DAO   old   all   still dandy man
            "He will always be a dandy man."

A stative goal is regarded as a result and hence the phrases after *dao* are resultative complements. Being preceded by a predicate, *dao* gradually becomes a proposition. The

prepositional *dao* preserves the thematic properties of the verbal *dao*. First, it assigns GOAL to the object. In addition, the goal could be a location, time, or a state.

LOCATION: (16) *Ta   zou   dao Taipei*   他走到台北
               he walk   DAO Taipei.
   " He walks to Taipei."

TIME: (17) *Ta   deng   dao   wu   dian*   他等到五點
               He   wait   DAO five o'clock
               "He waited until five o'clock."

STATE: (18) T*a ku   dao   yan-jing hong zhong* 她哭到眼睛紅腫
               he cry DAO   eye   red   swelling
               "She cried so heavily that her eyes are inflamed."

Conceptually, *dao* is like a goal indicator. When it is an extreme state that plays the role of goal, the excessive *dao* appears. In other words, the excessive meaning of *dao* is mainly brought by the element(s) following it. Then, how does *si* derive such a meaning? Many scholars study X-*si* construction, but only few touches this issue. Liu (2002) states that the excessive *si* is derived via metaphor; Chu (2006) proposes it is human's traditional concept about death that makes *si* excessive. In my opinion, however, there is a more convincing way for explanation. Similar to Liu, I also adopt metaphor; but differently, the metaphor on discussion is more directly related to excessiveness.
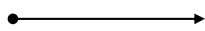
4.2 *Si*

Si originally refers to "death". The excessive meaning of it probably is made possible through conceptual metaphor. Human life is always conceptualized as a journey; therefore, there is always the expression "*zai rensheng de lutu shang* 在人生的旅途上 (in the journey of life)" uttered. A journey, basically, has a starting place and a destination, corresponding to SOURCE and GOAL. And in this life journey, death plays the very end.

alive   die
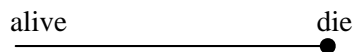
Accordingly, the conceptual structure of *si* is AGENT/THEME MOVES TO THE **END** OF A GOAL. Generally, arriving at a destination might not imply an end. V-*si*, differently, has an inherent end which makes the whole process bounded. Analyzing it from the aspect of climbing up a building, the entering into a building exemplifies the former conceptual structure, in which the building refers to the goal, the final destination. Climbing up to the top floor, the end of the building, takes the second conceptual structure.

AGENT/THEME MOVES TO A GOAL

The second not only mentions the result but also amplifies the inner state of this result. And taking the excessive meaning, *si* could be an degree adverb or a complement.

ADVERB: (19) *Ta si ai qian*   他死愛錢
        he SI love money
        "He likes wealth a lot."

COMPLEMENT: (20) *Ta mang si le*   他忙死了
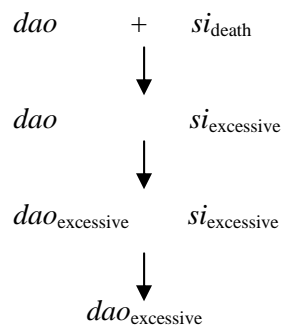   he busy SI ASP
        "He is awfully busy."

        (21) *Tian-qi   leng dao   si*   天氣冷到死
        Weather cold DAO SI
        "It is extremely cold."

4.3 *Dao-si*: The Emergence of Excessiveness

According to *Wikipedia*, the free encyclopedia, it is now commonly proposed that grammaticalization is a function of frequency of use. It is hypothesized that words found together with a high frequency come to be cognitively processed as single units, and that these units then evolve as individual words. In colloquial Taiwan Mandarin, *dao* is always combined with *si* to indicate the excessiveness of a state. The combination will gradually fix *dao* to an excessive complement, which then makes *dao* an excessive structural particle linking the predicate and the complement. To process the construction, the predicate first invokes a scale, *dao* makes the pointer move, and the occurrence of *si* leads the pointer to the highest volume.

    pang (fat)   *dao*   *si*
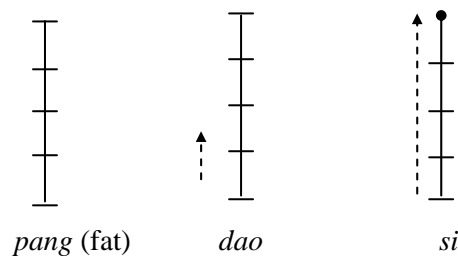
Once when *dao* is so closely linked to the excessive meaning that it takes over the semantic meaning of the complement, *si* could be deleted. As a result, *dao* could appear independently as a final particle (see section 5).

$$dao \quad + \quad si_{death}$$
$$\downarrow$$
$$dao \qquad si_{excessive}$$
$$\downarrow$$
$$dao_{excessive} \quad si_{excessive}$$
$$\downarrow$$
$$dao_{excessive}$$

4.4 With or Without *Dao*

It has been mentioned that the X-*dao-si* construction coexists with the X-*si* one, which seems to make the appearance of *dao* less significant. If the existence of *dao* makes no difference, why is there still the X-*dao-si* construction prevailing? In my opinion, an expression with *dao* is somewhat different from that without *dao*. The two structures seem to share the same meaning – excessiveness; however, *dao* appears to emphasize more the excessive state. First, the two *si*s are phonologically different. Through my personal observation, *si* in X-*dao-si* is more stressed. On the other hand, *si* in X-*si* construction cannot be strongly stressed, probably because of the following *le*. X-si always takes *le* at the end to be the aspect marker. Differently, there is always a period put at the end of V-*dao-si* phrase. Therefore, the sentence final *si* could be prolonged and results in stronger emotion.

  Cognitively, *dao* might more directly link the predicate and *si* (do something until dying). The associating process then progresses smoothly and can successfully express the extent the speaker intends to tell. Without *dao*, the predicate and *si* usually cannot be associated directly, for example, it is hard to combine *shuai* (handsome) with death. This then requires more processing time and the dramatic effect is reduced.

5. Degree of Grammaticalization

In some dialects, the excessive structural article would further grammaticalized to a final particle. Basically, a final particle is more grammaticalized than a structural one, for the later more or less obeys the original syntactic requirements. *Dao*, as a verb, takes two arguments. Being a structural particle, the argument after *dao* is still required, but not limit to nouns only. The structural particle *dao* could also take a clausal complement.

(22) *Ta   dao gong-yuan*   他到公園   (noun)
      he DAO park   "He arrived at the park."

(23) *Ta   xia dao   shou jiao fa-ma*   他嚇到手腳發麻   (clause)
      he frighten DAO   hand foot benumbed
      "He is so frightened that his limbs are benumbed."

Quite the other way, as a final particle, everything following DAO should be left out, which makes it a little deviate from the original syntactic structure. The following presents the possible grammaticalization process of motion terms:

VERB ➲ PREPOSITION ➲ STRUCTURAL PARTICLE ➲ FINAL PARTICLE

Mandarin *dao* is still on the middle way of grammaticalization and cannot be used as a final particle. However, the excessive structural particle in Southern Min, *kah*[4], can appear at the end.

(24) *Sui*[2]   *kah*[4]!   水kah!
      beautiful DAO
      "Very beautiful!"

(25) *Soe*   [2] *kah*[4]!   衰kah!
      unlucky DAO
      "Very unlucky!"

Basically, this grammaticalization process might occur in two situations. First, when the

combination of the structural particle *dao* and *si* appears with a very high frequency, people are able to predict what is followed while hearing *dao*. In such a circumstance, the elements after *dao* are unnecessary. Second, the grammaticalization happens when there is no excellent word to describe the state. Beside *si*, there are various expressions which could be filled in the complement slot, and most of them refer to extremely miserable situation.

(26) *san^3 kah^4 hoo^7 kui^2 liah^4 khi^0* 窮到予鬼掠去
    poor DAO   ghost catch go
    "extremely poor"

(27) *soe^1 kah^4 chhua^3-sai^2*   衰到挫屎
    unlucky DAO take shit
   "extremely unlucky"

(28) *leng^2 kah^4 beh^4 kau^3 pe^7*   冷到欲哭爸
    cold DAO   want cry father
    "awfully cold"

There might be cases in which the extremeness is too high to be described by any word, just like a girl is so beautiful that no word fits for admiration. Since it's hard to find a good expression to accurately express the situation, the speaker will make a pause after *kah*, trying to make long the time for finding a suitable phrase. The pause then becomes a period when *kah* becomes a final particle.

6. Conclusion

In this paper, we examine both *dao* and *si* in the modern popular X-*dao-si* construction. The structural particle *dao* is derived from the arriving *dao* through grammaticalization. And the excessive meaning of *dao* mainly comes from its adjacent element, namely, *si*. *Si*, by symbolizing the very end of the life journey, metaphorically indicates excessiveness. And its high-frequency occurrence with *dao* makes the excessive meaning spread to *dao*.

  It is not specific that the motion verb denoting to "arrive at" becomes an excessive structural particle because there are many southern dialects displaying such a phenomenon. However, dialects might differ in the degree of grammaticalization. Through a comparison between Mandarin *dao* and Southern Min *kah*[4], we find that *kah*[4] is more grammaticalized.

VERB ➲ PREPOSITION ➲ STRUCTURAL PARTICLE ➲ FINAL
PARTICLE
Mandarin
Southern Min
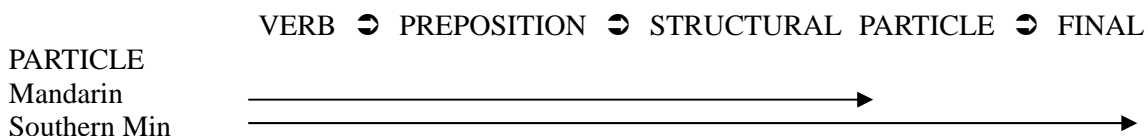
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