# Attitudinal Nominalizer(s) in Chinese:
## Evidence of recursive grammaticalization and pragmaticization

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**Abstract**

This paper examines the life-cycle of versatile nominalizers in Chinese, with special attention to how they develop into attitudinal stance markers. Based on cross-dialectal and diachronic data, we first identify a wide range of extended uses of nominalization constructions within the Sinitic language family, among them relativizing and subordinating uses, then trace how these dependent nominalization constructions are reanalyzed as independent finite structures. Our analysis reveals a series of semantic and syntactic scope expansions that paves the way for nominalization construction to be extended from referential uses to attitudinal uses. Our findings highlight the robustness of an (inter)subjectification process whereby nominalizers often combine with other particles at the right periphery to form complex sentence final mood particles, which have valuable implications for cartographic studies in diachronic syntax and also for diachronic pragmatics studies that focus on the interface between grammar and discourse—not only for Chinese, but for other languages with attitudinal nominalizers as well.

*Keywords: nominalization, attitudinal stance marker, insubordination, non-referential use, subjectivity, intersubjectivity*

## 1. Introduction[1]

One of the things that often catch the attention of linguists investigating the grammar of a language with sentence final particles is that some of these particles have the same form as the nominalizer or relativizer, and sometimes also the genitive or possessive marker, and in many cases the subordinator as well (see, for example, Author-1 et al. 2014). This frequent syncretism between nominalizer (and often relativizer, genitive/possessive marker and/or subordinator) and sentence final particle has been noted in the case of Japanese *no* > *no(da)/nda*, Korean *kes* > *kesita/kesiya* and *mal* > *malita/maliya*, Mandarin Chinese *de* > *de(ya/la/ba)*, and Cantonese Chinese *ge* > *ge(maa/laa/waa/bo/wo/lo/me/ze/zek)*, among others. A number of previous studies have addressed this phenomenon in terms of the semantic extensions of versatile nominalizers from the referential domain to non-referential ones, with the flow of grammaticalization along the following trajectory: referential > modificational > pragmatic (see Horie 2008, 2011; Rhee 2008, 2011; Author-1 et al. 2010; Author-1 & Other 2011; Author-1 et al. 2011 and papers therein; *inter alia*). This development parallels previous studies that support Traugott's observation that many instances of grammaticalization involve a development from propositional > textual > pragmatic uses (e.g. Traugott 1982, 1989, 1995, 2010; *inter alia*).

An interesting question is whether this crosslinguistically robust phenomenon is also robust *within* each of the languages manifesting this nominalizer/pragmatic marker syncretism. That is, does a language such as Chinese, for example, exhibit frequent recurrence of this phenomenon in which nominalizers develop into sentence final particles in a cyclical or

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[1] Abbreviations: AGT agent; CL classifier; COND conditional; CONN connective; COP copula; DEM demonstrative; EMPH emphatic marker; EXST existential marker; GEN genitive; INTJ interjection; NEG negator; NMLZ nominalizer; PASS passive marker; PERF perfect marker; PRT particle; REL relativizer; RVC resultative verb compound; SFP sentence final particle; SUB subordinator; SUF suffix; TOP topic marker; 1SG first person singular; 3SG third person singular.

iterative fashion, such that a diachronic view of the grammar of the language reveals multiple life-cycles of attitudinal nominalizers?

In this paper, we will examine the development of attitudinal nominalizers in Chinese, initially drawing on examples from Modern Chinese with examples such as Mandarin *de*, Cantonese *ge*, Chaozhou *kai* and Taiwan Southern Min *e*, then going back in time to Old Chinese with examples such as Classical Chinese *zhě*. We then also consider the possibility that some other sentence final particles in Old Chinese may also be derived from erstwhile attitudinal nominalizers. And we conclude with a discussion of the sources and consequences of different types of nominalizers, in particular their potential for developing into attitudinal sentence final particles. Our findings will contribute to a broader understanding of how grammatical and pragmatic particles drift from the nominal domain to predicational domains and beyond, to give rise to finite structures that also often include the speaker's subjective and intersubjective stances.

## 2.  Previous studies on attitudinal nominalizers in Chinese

Earlier studies have identified a number of versatile nominalizers in Chinese. Extending on the work of Jiang (1999) on Classical Chinese, Author-1 et al. (2010) showed how a general noun *dǐ* (initially 氐, and subsequently 底) meaning 'foundation', 'base' or 'bottom' as shown in (1) eventually became semantically generalized and was sufficiently versatile to develop, among other things, into an indefinite/interrogative pronoun as in (2), then a nominalizer and relativizer, as in (3) and (4) respectively. The relativizer further developed into a conditional subordinator *dehuà* (的話) 'if' as in (5), while the nominalizer ultimately developed into a sentence final particle as in (6).[2] Note that nominalizer *dǐ* (底) underwent phonological weakening to yield the phonological variant *de* (的) in Late Middle Chinese (ca. 8th to 10th century during the Tang period); over time, *de* subsequently replaced *di* during the Early Modern Chinese period (13th to 16th century).

(1)     尹氏大師！維周之氐。
        *yǐnshì    dàshī    wéi  zhōu  zhī  **dǐ***
        Yin (title) commander COP Zhou GEN foundation
        'The commander Yin! (He) is the **foundation** of the Zhou dynasty.'
        (*Shi Jing*, Pre-Qin period, i.e. pre-221 BC; Author-1 et al. 2010: 72)

(2)     興盛使軍人遙告敬則曰：
         *xīngshèng    shǐ  jūnrén    yáo gào jìngzé    yuē*
        (name of person) order military.person far  tell (name of person) say
        「公兒死已盡，公持許底作？」
        *gōng ér sǐ yǐ    jìn   gong chí xǔ  **dǐ**  zuò?*
        your son die already totally, you  hold  much what do
        'Xingsheng ordered his men to go tell Jingze:'
        Your son is gone; **what** do you hold on to now?'

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[2] As seen in (5), *dehua* (的話) 'if' constructions are derived from a relative clause construction in which general noun *hua* (話) 'word, speech, saying, supposition, etc.' serves as the head noun. Essentially, a [VP] *de hua* relative clause, yields a circumstantial reading such as 'the situation (< 'supposition, saying') that VP', and when such relative clauses are used to modify an event clause, we obtain a subordinate clause reading such as '(If) the situation (< 'saying') is VP, (then) …'

89               (*Song Shu*, Southern & Northern Kingdoms, 420-589 AD; Author-1 et al. 2010:
90               74)

(3)    乞眼睛**底**
　　　*qǐ  yǎnjing  **dǐ***
　　　ask  eyes    AGT.NMLZ
　　　'**the one who** asks about the eyes'
　　　(*Zu Tang Ji*, Five Dynasties & Ten Kingdoms, 907–960 AD; Author-1 et al. 2010:
　　　77)

(4)    療萬病**底**葯
　　　*liáo wàn        bìng  **dǐ**  yào*
　　　cure ten.thousand sickness REL  medicine
　　　'a medicine **that** cures all sickness'
　　　(*Jingde Zhuan Denglu*, Southern Song, 1127-1279 AD; Author-1 et al. 2010: 77)

(5)    他再說打**的話**，
　　　*tā   zài   shuō dǎ  **dehuà***，
　　　3SG again say   fight SUB.COND
　　　我就要見他的將主哩。
　　　*wǒ  jiù  yào jiàn tā   de      jiāngzhǔ    li*
　　　1SG then want see  3SG GEN commander SFP
　　　'**If** he says to fight again, I will then see his commander (to report the matter).'
　　　(*Qi Lu Deng*, 1918; Academia Sinica Tagged Corpus)

(6)    這都是守約的道理，的確不可改**的**。
　　　*zhè dōu shì  shǒuyuē      de    dàolǐ，díquè bù   kě  gǎi    **de***
　　　this all  COP keep.promise GEN rules    indeed NEG able change SFP
　　　'These are rules of keeping promises, which indeed can't be changed.'
　　　(*Zeng Guofan Jiashu*, ca. 1850s, Center for Chinese Linguistics Corpus)

The grammaticalization pathway for *di* and its phonological variant and descendant *de* is partially captured in Figure 1 below (see Author-1 et al. 2010: 81 for a more comprehensive chart). Of particular relevance for the present study is the link between the nominalizer *dǐ/de* (底/的) and its pragmatic use as an attitudinal sentence final particle *de* (的).

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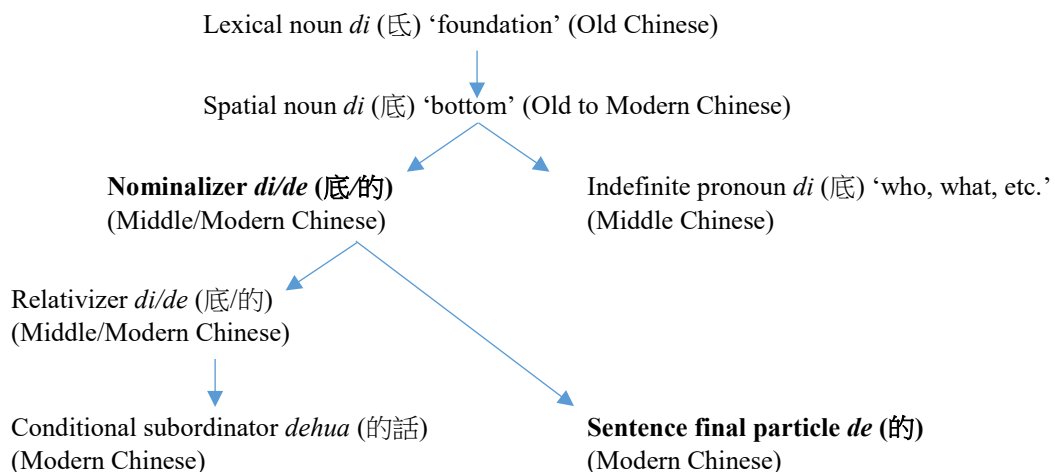Lexical noun *di* (氐) 'foundation' (Old Chinese)

Spatial noun *di* (底) 'bottom' (Old to Modern Chinese)

**Nominalizer *di/de* (底/的)**          Indefinite pronoun *di* (底) 'who, what, etc.'
(Middle/Modern Chinese)               (Middle Chinese)

Relativizer *di/de* (底/的)
(Middle/Modern Chinese)

Conditional subordinator *dehua* (的話)       **Sentence final particle *de* (的)**
(Modern Chinese)                       (Modern Chinese)

138    **Figure 1. Grammaticalization pathway of *di/de* in Chinese.**
139
140

141    In other words, the question of interest here is: What pragmatic motivation(s) and syntactic
142    mechanism(s) facilitate the reanalysis of versatile nominalizers into attitudinal particles? In
143    grammaticalization research, 'bridging examples' can provide valuable insights into such
144    reanalyses (see Heine 2002 on the role of 'contextualized reinterpretation'). As seen in (7), *de*
145    can sometimes be ambiguous, with either a nominalizing function or sentence final mood
146    marking function, and often with both functions available as well.
147

148    (7)    上下兩輪月，若個是真**底**？
149           *shàng  xià  liǎng  lún  yuè，ruò  gè  shì  zhēn  **dǐ**？*
150           up     down two   CL   moon which CL  COP real  NMLZ/SFP
151           'The moon up (in the sky) and the moon down (in the water), **which one is the**
152           **real one?' > '… which one is real?'**
153           (*Xia Ye Wan Yue*, Southern Song, 1127–1279 AD; see also Author-1 et al. 2010:
154           80)
155

156    The mediating conditions for the reinterpretation of *ruò gè shì zhēn dǐ?* (若個是真**底**) in
157    (7) above is a shift from a focus on a nominal predicate construction with a referential reading
158    ('which one is **the real one**?') to the speaker's attitudinal stance of the entire proposition
159    ('**which one is real?**'). This development constitutes a case of semantic scope expansion from
160    *ruo ge shi* [[*zhēn*] *dǐ*]? (若個是[[真]**底**]?), which implicates a contrast between two entities,
161    'the real one' and 'the illusion of the real one', to an extended reading that also focuses on the
162    speaker's (inter)subjective assessment of the entire proposition [[*ruò  gè  shì  zhēn*] *dǐ?*]
163    ([[若個是真]**底?**]). That is, the speaker is not merely trying to determine whether the addressee
164    is able to distinguish between a 'real moon' in contrast to one which is 'but a mere reflection
165    of it'. Rather, the use of *dǐ* signals the inclusion of the speaker's personal evaluation of the
166    proposition he/she is uttering. Crucially, sentence final *dǐ* is recruited to host the speaker's
167    sentence final prosody and thereby comes to capture or encode the speaker's mood.
168    In (7) above, given the interrogative context, the speaker's mood can involve a wide range
169    of information-seeking moves, ranging from genuine information-seeking to the indirect use
170    of questioning for social-bonding or solidarity-enhancing purposes, to feigned information-
171    seeking that is sometimes laced with doubt or even sarcasm. In this sense, the mood-marking
172    function of sentence final *dǐ* (or its phonological variant *de*) is underspecified, and is largely
173    dependent on the semantic prosody of the discourse context.
174    This type of reinterpretation, whereby nominalizer *dǐ/de* is reanalyzed as sentence final
175    particle *dǐ/de*, can be realized with little cognitive cost, since the speaker's sentence final
176    prosody inevitably falls on the sentence final constituent, which in this particular case is *dǐ/de*.
177    That is to say, in sentence final position, nominalizer *dǐ/de* is an ideal candidate for hosting the
178    prosodic cues that reflect the speaker's mood.
179    In Modern Chinese conversations, distinctions in the speaker's attitudinal stance is often
180    more finely tuned by the presence of additional sentence final particles, giving rise to fused
181    forms often referred to as complex sentence final particles. Examples from Mandarin include
182    interrogative sentence final particle *dene* (的呢) as in (8), and assertive sentence final particles
183    *deya* (的呀) and *dela* (的啦), as in (9) and (10) respectively. There is also speculative sentence
184    final particle *deba* (的吧), used to mark speaker's uncertainty as in (11), as well as *de'a* (的啊
185    ), which functions as an assertive sentence final particle with a certain degree of exclamatory

186 force, as shown in (12). Some of these expressive complex sentence final particles (e.g. *deya*
187 and *dela*) tend be more common in women's speech.
188
189 (8) 您怎麼知道這個消息的呢？
190 *nín  zěnme zhīdào zhè  gè xiāoxī     **dene***
191 2SG how   know   this CL information SFP
192 'How do you know this information?'
193 (*Luyu Youyue*, PKU Center for Chinese Linguistics Corpus)[3]
194
195 (9) 我相信現在人們看到這件事，
196 *wǒ  xiāngxìn xiànzài rénmen kàn dào  zhè jiàn shì ，*
197 1SG believe   now    people  see RVC this CL  event
198 可能會覺得挺正常的呀。
199 *kěnéng   huì juédé tǐng zhèngcháng **deya***
200 probably  will think very normal       SFP
201 'I believe now when people see this event, they would consider it pretty normal.'
202 (*Luyu Youyue*, PKU Center for Chinese Linguistics Corpus)
203
204 (10) 天亮的時候，空氣很冷的啦。
205 *tiān liàng de   shíhòu ，kōngqì hěn  lěng **dela***
206 sky bright GEN time      air     very cold SFP
207 'When it is dawn, the air is very cold.'
208 (*Zuojia Wenzhai*, PKU Center for Chinese Linguistics Corpus)
209
210 (11) 人活到七十三歲，總有些什麼秘密的吧。
211 *rén   huó dào qīshísān   suì ，zǒng  yǒu xiē  shénme mìmì **deba***
212 people live to  seventy.three years always have some what     secret SFP
213 'People who have lived for seventy-three years must have some secret.'
214 (*Canxue Zixuan Ji*, PKU Center for Chinese Linguistics Corpus)
215
216 (12) 他提出的這個方案可是前人沒有做過的啊！
217 *tā    tíchū   de  zhè gè fāngàn kě   shì qiánrén    méiyǒu    zuò*
218 3SG propose GEN this.CL plan    EMPH COP predecessor NEG.have  do
219 *guò  **de'a***
220 PERF SFP
221 'The plan that he proposes has never been done by others before.'
222  (Newspaper Selection, 1994, PKU Center for Chinese Linguistics Corpus)
223

This phenomenon in which nominalizers are often reanalyzed as sentence final pragmatic
markers is fairly robust within the Sinitic language family. Similar developments have been
reported for Cantonese *ge³* (嘅) (see for example Author-1 et al. 2004; Author-1 et al. 2014),
as briefly illustrated with nominalizer *ge³* in (13a) and assertive sentence final *ge³* in (13b)
below (examples from Sio 2011).

230     (13)    a.  紅色嘅係蘋果。

               *hung5sik6*    ***ge3***    *hai6*    *peng4gwo2*

               red          NMLZ    COP    apple

               'The red ones are apples.' (Sio 2011: 132)

231           b.  佢會黎嘅。

               *keoi5*    *wui5*    *lei4*    ***ge3***

               3SG       will       come    SFP

               '(Don't worry) he will come.' ' (Sio 2011: 126)

232     In fact, compared to Mandarin Chinese, Cantonese has an even richer inventory of complex
233 sentence final particles derived from fusions between its *ge³*-nominalizer and a wide range of
234 sentence final particles (SFPs). Fung (2000) refers to these complex particles as the *g*-particles.
235 Examples extracted from the PolyU Corpus of Spoken Cantonese[4] include an assertive *ge³lo³*
236 (嘅囉) that is expressing a sense of 'obviousness' as in (14), interrogative *ge³le¹* (嘅呢) as in
237 (15), and trivializing *ge³ze¹* (嘅啫) as in (16). These complex sentence final [*ge³* + SFP]
238 particles express the speaker's subjective stance.

239

240     (14)    (laughter) 即係諗起呢一啲咁樣**嘅囉**…

             *zik1hai6*    *lam2hei2*    *nei1jat1di1*    *gam2joeng2*    ***ge3***    ***lo1***

             that.is       think.raise    DEM.one.CL    like.this.kind    SFP    SFP

             'That is, thinking of this sort of things, *obviously*.'

             (PolyU Corpus of Spoken Chinese: Cantonese)

241

242     (15)    點解 會 咁 辛苦 **嘅 呢**，嗰種感覺。

             *dim2gaai2*    *wui2*    *gam3*    *san1fu2*    ***ge3***    ***le1***，

             why       will    like.that    tough    SFP    SFP

             *go2*    *zung2*    gam2gaau3

             CL       kind    feeling

             'Why would it be that tough, that kind of feeling?'

             (PolyU Corpus of Spoken Chinese: Cantonese)

243

244     (16)    係咁簡單**嘅啫**

             *hai6*    *gam3*    *gaan2daan1*    ***ge3***    ***ze1***

             COP    like.that    simple    SFP    SFP

             'It is just that simple.'

             (PolyU Corpus of Spoken Chinese: Cantonese)

245

246     Sentence final *ge³* (嘅) can also combine with another particle *aa³* (呀) to form *gaa³* (架),
247 which yields an utterance that is slightly less assertive and often also accompanied by more
248 specific sentence final particles, as in the case of *gaa³wo³* with a mirative reading that signals
249 sudden realization and often agreement (or in some cases disagreement) with other
250 interlocutors, as in (17a), *gaa³laa³* with a hint of resignation, as in (17b), and *gaa³zaa³* with a

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[4] This corpus can be accessed at the following website: http://158.132.111.208/ (PolyU Corpus of Spoken Chinese: Cantonese) hosted by the Department of English, Hong Kong Polytechnic University.

delimitative reading, as in (17c).[5] These complex particles generally have an interpersonal (or addressee-engaging) function.

(17) a. 係喎，佢冇閘**㗎喎**！

hai6 wo3， keoi5 mou5 zaap6 **gaa3** **wo3**
yes SFP it no gate SFP SFP
'Yes, (come to think of it, you're right!), there is no gate.'
(PolyU Corpus of Spoken Chinese: Cantonese)

b. [laughter] 唉，有返咁上下年紀係咁樣**㗎喇**。

aai1， jau5faan1 gam3 soeng6haa2 nin4gei2
INTJ have.again like.that around age

hai6 gam2joeng2 **gaa3** **laa3**
COP like.this.kind SFP SFP
'Sigh, it's just like this when getting old.'
(PolyU Corpus of Spoken Chinese: Cantonese)

c. 飲奶茶我淨係發現有間正**㗎咋**。

jam2 laai5caa4 ngo5 zing6hai6 faat3jin6
drink milk.tea 1SG just discover

jau5 gaan1 zeng3 **gaa3** **zaa3**

EXIST CL good SFP SFP
'There's only one place that I've found that can serve good milk tea.'
(Hong Kong Cantonese Corpus)

Similar developments of attitudinal uses of nominalizers have also been observed in the Southern Min dialects. In this subgroup of the Sinitic language family, different degrees of grammaticalization are often accompanied by changes in tone sandhi. Among the attitudinal nominalizers noted in previous studies are Chaozhou *kai* (Xu & Matthews 2011) and Taiwan Southern Min *e* (Li 2012), as illustrated in (18) and (19) respectively. It is quite possible that these developments that give rise to attitudinal nominalizers are pan-Chinese, which clearly calls for more research on this phenomenon across various Chinese dialects.

(18) a. [$gua^{11}ti^{11}$ $lai^{55-11}$ $tsio^{53-35}$ $p'a\Omega^2kan^{33}$ **$kai^{55-11}$**] $lon^{53-35}$ $si^{35-21\ 35-}$
outside come here work NMLZ all COP
$gua^{11}$ $sen^{53-}$ $ki\tilde{a}^{53}$
outside province SUF
'The laborers from outside (of Chaozhou) are from other provinces.'
(Xu and Matthews 2011: 119)

b. [$ua^{53}$ $m^{35-21}$ $tsai^{33}$ $ma^{11},$ $m^{35-21}$ $hi^{35}$ $ua^{53}$ $boi^{53-35}$ **$kai^{55-11}$**]
1SG not know PRT not COP 1SG buy **STANCE**
'I didn't know (about this). It was not me who bought it.' (or: I didn't buy it,
I am telling you.) (Xu and Matthews 2011: 110)

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(19) a.　S1:　這只(螃蟹)是**[公 e ]**。

chit　chiah　(mng-hōei)　sī　kang　e

DEM CL　(crab)　　COP　male　NMLZ

'This (crab) is male.'

Lit. 'This crab is a male one.'

　　　　S2:　(許只)是母[e le⁵⁵]。

(hit　chiah)　sī　**[bú　　e　　]**　le⁵⁵

DEM CL　　COP　female　NMLZ　SFP

'It is female.'

(Lien, 1988b: 219)

b.　伊是什麼時候來 **e**?

i　sī　siánn-mih　sî-kan　lâi　**e**

3SG COP　what　　time　　come　SFP

'When did he come?' (Li 2012: 89; romanization added)

An interesting follow-up question that arises in relation to these semantic extensions of versatile nominalizers in Sinitic languages is whether nominalizers in Old Chinese also underwent similar semantic and syntactic changes and developed into sentence final particles with attitudinal readings. If so, to what extent? If these developments are recurrent and robust within and across languages, what do such grammaticalization tendencies reveal about the life-cycle of nominalizers specifically, and about the way grammar evolves in general?

## 3. Attitudinal nominalizers in Old Chinese

To address the above research questions related to the diachronic development of attitudinal nominalizers in Old Chinese, we will first examine the range of functions of versatile Classical Chinese agent nominalizer *zhě* (者) (section 3.1) for comparison with the more recent developments noted earlier in section 2 above for contemporary spoken Chinese varieties, including regional dialects as well as Modern Chinese *de*. Special emphasis will be given to the link between nominalizer and sentence final particle uses of *zhě*. We then examine the range of functions of another versatile particle, namely *yě* (也), whose status as a nominalizer is unclear; in fact, *yě* has not been explicitly identified as a 'nominalizer' in previous studies, although its various functions overlap extensively with those of nominalizer *zhě* (section 3.2). Rather telling, however, is the frequent reference to the term 'nominal predicate marker' among Chinese linguists (see Author-3 2010 for a comprehensive review), which suggests a possible link to a 'nominalizer' or 'nominal marker' origin.[6] An interesting puzzle to investigate, therefore, is the possibility that *yě* may at one time have been an erstwhile nominalizer, one that that had undergone extensive grammaticalization such that its functions that are attested in recorded history are largely already non-referential in nature, making it difficult in previous works to identify *yě* as a nominalizer, despite its frequent occurrence in utterances that often involve nominalization constructions. Our purpose in section 3.2 is to examine the extent of overlap, and hence also the likelihood that *yě* may have once been a nominalizing element. We

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[6] See Shibatani (2013) and Shibatani and Shigeno (2013) for a discussion of the distinction between the two terms, where he identifies the term 'nominalizer' with a nominalizing element that can function as a head noun, while the term 'nominal marker' is used to to refer to referentiality marking devices (e.g. classifiers, plural markers, demonstratives, definiteness markers, case markers, and topic markers) that signal the presence of nominalization constructions, including noun phrases and nominalized clauses (see also Malchukov 2004, 2006; Author-1 et al. 2011; among others).

then follow up our analysis with a brief survey of other versatile particles in Old Chinese with nominalizing and modalizing functions in sentence final position (section 3.3); this can help us gain a clearer picture of the potential of nominalizers to develop into pragmatic markers in Old Chinese. Evidence of the extended use of nominalizers as sentence final particles in both Old and Middle Chinese can provide an indication of the robustness of a nominalizer > pragmatic marker grammaticalization trajectory in the history of the Chinese language, with implications for our understanding of the life-cycle of nominalizers in other languages as well.

### 3.1 Evidence of *zhě* as a versatile nominalizer with attitudinal uses in Old Chinese

Among the most prolific nominalizers in Classical Chinese is *zhě*, best known for its primary function as an agent nominalizer, as illustrated in (20). Previous studies have identified a number of extended, non-referential uses of this versatile nominalizer, for example, identifying *zhě* with adverbial subordinator functions with temporal ('when/while') an/or conditional ('if') readings in Old Chinese (Author-1 & Other 2011), as shown in (21) and (22).[7]

(20)　　含德之厚者，比於赤子。
　　　　*hán　　dé　　zhī　　hòu　　zhě　，　bǐ　　yú　　chìzǐ*
　　　　embrace virtue GEN fullness NMLZ compare to newborn
　　　　'One who embraces the fullness of virtue may be compared to a newborn babe.' (*Laozi jia,* 老子甲, strip 33, GD 1998: 113, Cook 2012: 275)

(21)　　大而 罕者，能有取焉?
　　　　*dà　　ér　　hǎn　zhě　，　néng　yǒu　qǔ　　yān*
　　　　great and rare NMLZ can have choice SFP
　　　　'**When/If** the crime is great and rare (< the time when there is great and rare crimes), can there be a choice (in whether or not to execute punishment)?' (*Wu xing* 五行, strips 42-43, GD 1998: 151, Cook 2012: 514)

(22)　　得者樂，失者哀。
　　　　*dé　　zhě　　lè　，　shī　zhě　　āi*
　　　　obtain NMLZ happy lose NMLZ sad
　　　　'**When/If** one obtains (virtue) there is joy, **when/if** one loses (it), there is grief.' (*Yucong, san* 語叢三, strip 59, GD 1998: 212, Cook 2012: 896)

In Late Old Chinese, as attested in ancient texts such as *Shǐjì* (史記) ('Records of the Grand Historian', otherwise known as 'The Scribe's Records', Western Han period, ca. 94 BCE), nominalizer *zhě* was also occasionally used as a relativizer following a prenominal relative clause and preceding a lexical noun, as in (23). Worth noting in this example is that *zhě* (者) could be interpreted in one of two ways. As highlighted in (23a), *zhě* (者) could be interpreted as a nominalizer for the noun-modifying construction *xiào chén zhě* 'the one who laughed at me' (笑臣者), in which case there could optionally be an overt modification marker (or relativizer) *zhī* (之) linking this *zhě* -nominalization construction to the head noun *tou* 'head' (頭) that is being modified. (23b), on the other hand, highlights how the absence of *zhī* (之) as an overt modification marker facilitates the reanalysis of *zhě* (者) from nominalizer to relativizer (see Aldridge 2008; Author-1 & Other 2011).

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[7] The abbreviation GD stands for Guodian Manuscript.

(23)　　　臣 願 得 笑 臣 者 頭。

    a.　*chén yuàn dé* [[[*xiào chén* ] *zhě*] ___ *tóu* ]
      1SG want get laugh me ZHE nominalizer (optional ZHI) relativizer head
      'I want the head of the one who laughed at me.'

    b.　*chén yuàn dé* [[[*xiào chén* ] ___ nominalizer ] *zhě*] relativizer *tóu* ]
      1SG want get laugh me ZHE (ZHI) head
      'I want the head of the one who laughed at me.'
      (*Shiji*; see also Aldridge 2008: 15 and Author-1 & Other 2011: 71)

As shown in Table 1, our analysis of *zhě* tokens from the Guodian Manuscripts, which were recently excavated from Guodian Village in the city of Jingmen in Hubei province in the 1990s, reveals extensive use of *zhě* within the referential domain (86%) and some extended uses within the non-referential domain (12%) during the late Warring States period (4th century BCE).

**Table 1. Frequency distribution of the functions of *zhě* in the Guodian Manuscripts**

| Function | No. of Tokens | Percentage |
| --- | --- | --- |
| *Referential domain:* | | |
| Agent nominalizer | 109 | 43.6 % |
| Nominalizer for abstract entities | 41 | 16.4 % |
| Event nominalizer | 5 | 2.0 % |
| Nominalizer (paving the way to topic marking) | 11 | 4.4 % |
| Topic marker (with NP *zhe* in topic position) | 19 | 7.6 % |
| *yě zhě* topic marker | 8 | 3.2 % |
| Definiteness marker | 8 | 3.2 % |
| Lexical nominalization | 7 | 2.8 % |
| Temporal noun~time adverbial | 7 | 2.8 % |
| **Sub-total of *zhe* tokens = 215; 86%)** | | |
| *Non-referential domain:* | | |
| Subordinate clause marker with temporal/conditional reading | 20 | 8.0 % |
| *zhě* -nominalization following a predicate introduced by *you* 'have' (*zhě* in clause final position with a dual nominalizer-cum-SFP function) | 5 | 2.0 % |
| *zhě* -nominalization with SFP effect (emphatic/assertive) | 1 | 0.4 % |
| Sentence final particle (SFP) | 4 | 1.6 % |
| **Sub-total of *zhě* tokens = 30; 12%)** | | |
| Others: fragmented and unanalyzable tokens | 5 | 2.0 % |
| **Total number of tokens** | **250** | **100 %** |

Within the referential domain, *zhě* was most frequently used as an agent nominalizer (43.6%), as in (24), and it also developed into a general nominalizer for abstract entities (16.4%), such as pleasure, regrets and reasons for one's distress, as illustrated in (25) to (27) respectively. *Zhě* was also used to nominalize inherent states, qualities or properties (2.8%), often giving rise to lexical nominalizations such as *yì zhě* (義者) 'righteousness', as in (28).

(24)　　　知之**者**弗言，言之**者**弗知。

| 395 | | *zhī zhī zhě fú yán ， yán zhī zhě fú zhī* |
|---|---|---|
| 396 | | know 3SG NMLZ NEG say   say 3SG NMLZ NEG know |
| 397 | | '**Those who** understand it say nothing about it; **those who** talk about it do not |
| 398 | | understand it.' (*Laozi jia,* 老子甲, strip 27, GD 1998: 112, Cook 2012: 267) |
| 399 | | |

400 (25) 凡悅，作<u>於與者</u>也。
401 *fán yuè ， zuò yú yǔ zhě yě*
402 generally pleasure  arise from approve NMLZ SFP
403 'In general, pleasure is **what** comes from being approved.'
404 (*Yucong, er* 語叢二, strip 42, GD 1998: 205, Cook 2012: 859)

406 (26) 凡悔，<u>已道者</u>也。
407 *fán huǐ ， yǐ dào **zhě** yě*
408 generally regret stop way NMLZ SFP
409 'In general regrets are **what** puts a stop to the way (= path of happiness).'
410 (*Yucong, er* 語叢二, strip 38, GD 1998: 204, Cook 2012: 858)

412 (27) <u>吾所以有大患者</u>，為吾有身。
413 *wú suǒyǐ yǒu dà huàn **zhě** ， wéi wú yǒu shēn*
414 we therefore have great distress NMLZ because we have body
415 '**The reason** we have great distress is that we have bodies.'
416 (*Laozi yi* 老子乙, strip 7, GD 1998: 118, Cook 2012: 292)

418 (28) <u>義者</u>，君德也。
419 *yì **zhě** ， jūn dé yě*
420 righteous NMLZ  lord virtue SFP
421 '<u>Righteousness</u> is the virtue of the lord.'
422 (*Liu de* 六德, strip 15, GD 1998: 187, Cook 2012: 779)

424     *Zhě* -nominalization constructions were also often found in topic position (7.6%), where
425 they served as anaphoric elements linked to the prior discourse, and this facilitated the strong
426 association of nominalizer *zhě* with a definiteness reading, as in (29). Such links between
427 nominalization and definiteness marking have also been attested in other languages (see, for
428 example, Liu & Gu 2011 on nominalizer and definiteness marker *su* in Nuosu Yi, a Tibeto-
429 Burman language spoken in the Sinosphere). The definiteness interpretation is characterized
430 by a sense of identifiability, either from prior discourse or from a sense of familiarity, shared
431 knowledge or uniqueness, as in (30).[8]

433 (29) <u>三者</u>，忠人弗作，信人弗為也。
434 *sān **zhě** ， zhōng rén fú zuò ， xìn rén fú wéi yě*
435 three NMLZ loyal people NEG do   trustworthy people NEG do  SFP
436 '<u>These three (behaviors)</u>, a loyal man would not perform them, a trustworthy
437 man would not enact them.'
438 (*Zhongxin zhi dao* 忠信之道, strip 6, GD 1998: 163, Cook 2012: 580)

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[8] See Hawkins (1978) and Lyons (1999) for a more comprehensive discussion of the relationship between (in)definiteness, identifiability and familiarity.

440  (30)      陰陽**者**，神明之所生也。…天地**者**，大一之所生也。
441              *yīn yáng **zhě** , shénmíng zhī suǒ shēng yě*
442              Yin Yang NMLZ gods    GEN PASS produce SFP
443              *... tiān dì **zhě**, dàyī    zhī suǒ shēng yě*
444                 Heaven Earth NMLZ the.Great.One GEN PASS produce SFP
445              'Yin and Yang were produced by the gods above and below. … And Heaven
446              and Earth were produced by the Great One.'
447              (*Taiyi sheng shui* 太一生水, strips 5-6, GD 1998: 125, Cook 2012: 346)

449     In topic position, *zhě* -nominalization constructions in the Guodian Manuscripts essentially
450  serve as a mental-staging device, for the purpose of identifying and setting up a referent (e.g.
451  an agent, patient, location, instrument) for further comment or elaboration in the upcoming
452  discourse (see Hinds 1987 for a similar analysis for Japanese). As seen in (31), when the *zhě* -
453  nominalization construction is deployed in utterance-initial position, nominalizer *zhě* is often
454  reinterpreted as a topic marker. When a *zhě* -nominalization makes reference to an abstract
455  entity such as time or a hypothetical situation, the construction is pressed into service as an
456  adverbial clause, and nominalizer *zhě* is then reanalyzed as an adverbial subordinator (e.g.
457  'when/if'), as seen in (32), reproduced from (21) above. In the Guodian Manuscripts, as seen
458  in Table 1, *zhě* is used as a subordinate clause marker 8% of the time, mainly to express
459  temporal/conditional information. It is further worth noting that semantic and functional
460  similarities between topic marking and conditional clause marking are highly robust and well-
461  attested crosslinguistically (e.g. Haiman 1978; Dancygier & Sweetser 2005).

463  (31)      其三術**者**，道之而已。
464              *qí    sān shù    zhě,    dào zhī éryǐ*
465              3SG.GEN three techniques NMLZ/TOP say 3SG merely
466              '**As for** the other three techniques, they can be talked about and that's all.'
467              (*Xing zi ming chu* 性自命出, strip 15, GD 1998: 179, Cook 2012: 708)

469  (32)      大而 罕**者**，能有取焉?                              [= (21)]
470              *dà ér hǎn zhě , néng yǒu qǔ    yān?*
471              big and rare NMLZ can  have choice SFP
472              '**When/If** the crime is great and rare, can there be a choice (in whether or not
473              to execute punishment)?'
474              (*Wu xing* 五行, strips 42-43, GD 1998: 151, Cook 2012: 514)

476     Of special relevance to our present study is evidence of *zhě* used as a sentence final particle.
477  Although the number of tokens found in the Guodian Manuscripts as seen from Table 1 above
478  is small (1.6%), the morphosyntactic evidence that nominalizer *zhě* had also grammaticalized
479  into a pragmatic marker is highly compelling. Consider examples such as (33) and (34) below,
480  where sentence final *zhě* (者) is preceded by the focus particle *yě* (也). Given that *yě* (也) is a
481  bona fide sentence final particle in Old Chinese (Pulleyblank 1995), *zhě* (者) in these sentences
482  has to be a sentence final particle as well, since it occurs at the rightmost periphery and thus
483  has even broader semantic and syntactic scope than *yě* (也). In fact, *yězhě* (也者) is very likely
484  a complex sentence final particle, not unlike the complex sentence final particles *deya* (的呀)
485  and *dela* (的啦) in Mandarin Chinese, or the *g*-particles (i.e. 嘅 + SFP) in Cantonese. It is worth
486  recalling at this juncture that these complex sentence final particles are derived from
487  combinations of nominalizers and other particles.

(33)　　亡亡由**也者**

　　*wáng*　　*wáng*　　*yóu*　***yě***　***zhě***
　　NEG.have　NEG.have　origin　SFP　SFP
　　'There is nothing that does not have an origin.'
　　(*Yucong, san* 語叢三, strip 66, GD 1998: 213, Cook 2012: 898)

(34)　　凡物亡不異**也者**。

　　*fán*　　*wù*　*wáng*　　*bù*　*yì*　***yě***　***zhě***
　　generally　thing　NEG.have　NEG　different　SFP　SFP
　　'In general, there is nothing that is not different (i.e. they are all different from
　　each other depending on their inborn nature).'
　　(*Xing zi ming chu* 性自命出, strip 8, GD 1998: 179, Cook 2012: 703)

How might we account for the reanalysis of nominalizer *zhě* as a sentence final particle? The Guodian Manuscripts provide some helpful clues in the form of *zhě*-nominalization constructions with ambiguous or dual nominalizer-cum-SFP readings such as (35) below. These constructions serve as 'bridge context' constructions, whereby nominalizer *zhě* can be reinterpreted as an assertive/presumptive sentence final particle. More specifically, in (35), given a *wèiyǒu* (未有 'NEG-have') negative existential construction with a *zhě*-nominalization construction as the complement clause, it naturally fell upon utterance-final *zhě* to serve as the landing site for the speaker's semantic prosody at the right periphery. As such, utterance-final *zhě* often doubled up as both nominalizer and mood marker.

(35)　　未有<u>善事人而不返</u>**者**。未有<u>謘而忠</u>**者**。

　　*wèi*　*yǒu*　*shàn*　*shì*　*rén*　*ér*　*bù*　*fǎn*　***zhě***
　　NEG　have　good　treat　people　and　NEG　return　NMLZ
　　*wèi*　*yǒu*　*wá*　　*ér*　*zhōng*　***zhě***
　　NEG　have　clamorous　CONJ　loyal　NMLZ
　　'It has not yet occurred **that** one treats others well yet (good) does not return
　　(to him). It has not yet occurred **that** one is clamorous (=boastful) yet loyal.'
　　(*Yucong, er* 語叢二, strip 45, GD 1998: 205, Cook 2012: 861)

In (35) above, we see two consecutive tokens in which nominalizer *zhě* scopes over clauses coordinated by concessive conjunctive *ér* (而), both evidence that nominalizer *zhě* is fairly grammaticalized, with a fairly extendable bandwith in terms of semantic and syntactic scope. In the first instance, nominalizer *zhě* (functioning much like English complementizer *that*) scopes over the conjoined construction *shàn shì rén ér bù fǎn* 'one treats others well *yet* good does not return to him' (善事人而不返), while in the second instance, nominalizer *zhě* scopes over the conjoined construction *wá ér zhōng* 'one is clamorous *yet* loyal' (謘而忠). It is worth noting here that the focus of attention in these *zhě*-nominalized complement clauses falls on the concessive semantics inherent in conjunctive *ér* (而 'yet'), and in such contexts, nominalizer *zhě* also comes to be closely associated with the concessive mood of these *ér*-conjoined utterances.

Moreover, as a nominalizer that can double up as a sentence final particle, *zhě* can broaden its semantic and syntactic scope even further. That is, by serving as the landing site for the speaker's sentence final prosody, *zhě* has come to also encode the speaker's subjective and

13

535 intersubjective (i.e. interpersonal) stance as well, one that is by default assertive in nature.[9] In
536 other words, the scope of sentence final *zhě* can further extend over the entire proposition, such
537 that the first *zhě* in (35) above can be reanalyzed as an assertive sentence final particle that
538 scopes over the entire negative existential construction *wèi yǒu shàn shì rén ér bù fǎn* 'It has
539 *not yet* occurred that one treats others well but good does not return to him' (未有善事人而不
540 返); likewise the second *zhě* can be reanalyzed as an assertive sentence final particle that scopes
541 over the negative existential construction *wèi yǒu wá ér zhōng* 'It has *not yet* occurred that one
542 is clamorous but loyal' (未有譁而忠).

543     Of particular interest for our present paper is the semantic scope expansion of *zhě*, as
544 illustrated in negative existential constructions such as (35) above, where initially we see
545 nominalizer *zhě* interacting with concessive conjunctive *ér* to yield complex referential
546 entities—in the form of '[VP *ér* VP] *zhě*'-type complement clauses (e.g. '*that* [one treats others
547 well *yet* good does not return to him]' and '*that* [one is clamorous *yet* loyal]'), as in (35a') —
548 and subsequently we see *zhě* further scoping over the entire proposition to express the speaker's
549 assertive stance, in the form of '[NEG-have VP er VP] *zhě*'-type evaluative utterances (e.g. 'It
550 has *yet* to occur [that one treats others well yet good does not return to him]' and 'It has *yet* to
551 occur [that one is clamorous yet loyal]'), as in (35b'). Essentially, we see syntactic re-
552 bracketing accompanying semantic extension, where the nominalizing function of *zhě* is
553 eclipsed by its modal function at the right periphery, in large part because *zhě* is now assigned
554 to express the modal semantics encoded by the speaker's sentence final prosody.
555

556 (35') a. 未有 [[ 善事人而不返 ] 者 **NMLZ**]。
557     It has not yet occurred [***that*** [one treats others well *yet* (good) does not return
558     (to him)] **NMLZ**]
559

560     未有 [[ 譁而忠 ] 者 **NMLZ**]。
561     It has not yet occurred [***that*** [one is clamorous *yet* loyal] **NMLZ**]
562

563     b. [ 未有 [[ 善事人而不返 ] _ **NMLZ** ] 者 **SFP**]。
564     [It has ***not yet*** occurred [***that*** [one treats others well yet (good) does not return
565     (to him)] _ **NMLZ** ] 者 **SFP**]
566

567     [ 未有 [[ 譁而忠 ] _ **NMLZ** ] 者 **SFP**]。
568     [It has ***not yet*** occurred [that [one is clamorous yet loyal] _ **NMLZ** ] 者 **SFP**]
569

570     Another type of construction capable of facilitating the reanalysis of nominalizer *zhě* as a
571 sentence final particle is the 'covert cleft' construction, which involves an insubordinated *zhě*-
572 nominalization construction. Consider (36) below, where we see a *zhě*-nominalization
573 construction functioning as a finite main clause following a temporal adverbial construction.
574

575 (36) 呼與容與，夫其行者。
576     *hū      yú   róng      yú ， fū   qí   háng zhě*
577     appellation PRT appearance PRT then 3SG act    NMLZ
578     'When the appellation is one with the appearance, then it can be acted upon.'
579     (*Yucong, yi* 語叢一, strip 109, GD 1998: 199, Cook 2012: 842))
580

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[9] Depending on the context, sentence-final *zhe* can also host other semantic prosodies, including interrogative and imperative mood (see, for example, Author-1 & Other 2011).

The presence of *zhě* serves as a syntactic cue indicating the presence of a covert cleft construction. In other words, we have a *zhě*-nominalization construction within a cleft-type focus construction that is subject-less and copula-less, hence the assertive force reading: 'When the appellation agrees with the appearance (of something), then *(it is)* [***that it can be acted upon***]'. This covert cleft-type focus construction is often simply reinterpreted as an assertive (deontic) utterance '…, then [*it can be acted upon*]'. Such reinterpretations, which necessarily involve the ellipsis of the subject and the copula in the main clause, trigger a restructuring of the syntactic structure of the cleft-type focus construction, resulting in a process of 'insubordination' (see Evans 2007) which gives rise to the reanalysis of the *zhě*-nominalization construction from a subordinate complement clause to a finite structure that now becomes 'the new main clause' (Noonan 1997). Insubordination of this particular type involves a shift from the referential domain to a non-referential and pragmatic one, with nominalizer *zhě* reanalyzed as a TAM (tense-aspect-mood) finiteness marker, which in the case of Old Chinese *zhě* takes the form of an assertive sentence final mood particle.

Such developments are well-attested across the languages of the world (see Author-1 & Other 2008; Author-1 et al. 2011 and papers therein), and as noted earlier in section 2 have been observed not only in Old Chinese but in more contemporary Sinitic languages as well (Author-1 et al. 2010; Author-1 & Other 2011). Similar developments have also been noted in Japanese (Horie 2008, 2011), Korean (Rhee 2008, 2011), Mongolic languages (Other & Author-1 2016), and Tibeto-Burman languages (Noonan 1997, 2008, 2011; DeLancey 2011; Liu & Gu 2011), among many others.

To sum up this section, the insubordination of *zhě*-nominalization constructions into finite structures, where nominalizer *zhě* is reanalyzed as a sentence final mood particle that encodes the speaker's subjective evaluation, often with intersubjective/interpersonal nuances that arise from the speaker's assertion in dialogic discourse, is clearly not an isolated phenomenon that is unique to Old Chinese. We see recursions of this type of insubordination phenomenon in other Sinitic varieties, including Mandarin *de*-constructions, Cantonese *ge3*-constructions and Southern Min classifier-nominalizer constructions (discussed earlier in section 2). This syncretism between a head-final nominalizer and an utterance-final modal particle may in fact be pan-Chinese and clearly deserves further cross-dialectal investigation. We have also noted that similar syncretisms have been observed in other languages as well. What we would like to further examine in the next sub-section is the question of whether there were other 'attitudinal nominalizers' in Old Chinese, and whether paradigmatic effects may have played a role in the expanded use of attitudinal nominalizers in the history of the Chinese language. Answers to this question will also be useful in our analysis of attitudinal nominalizers in other languages.

### 3.2 Was *yě* an attitudinal nominalizer in Old Chinese?

In this section we will examine whether *yě* (也) could have been a nominalizer that also developed into an attitudinal sentence final particle in Old Chinese. The status of *yě* as a sentence final particle with a 'judgmental' (hence subjective) reading on the part of the speaker, as shown in (37) and (38) below, is well-documented in the literature (see Author-3 2010 for a comprehensive review; see also Author-3 2015). However, whether *yě* was ever a nominalizer is still unclear and deserves further study. We will first identify some of the robust functions for *yě*, then examine more closely the possibility that *yě* may also have once been a nominalizer.

(37)  義者，君德也。                                                    [= (28)]
      *yì      zhě ,  jūn dé    yě*
      righteous NMLZ lord virtue SFP
      'Righteousness is the virtue of the lord.'

631           (*Liu de* 六德, strip 15, GD 1998: 187, Cook 2012: 779)

632

633     (38)    聖也者，父德**也**。

634           *shèng  yě    zhě ， fù  dé  **yě***

635           saintly NMLZ TOP   father virtue SFP

636           'Saintliness is the virtue of fathers.'

637           (*Liu de* 六德, strip 21, GD 1998: 187, Cook 2012: 781)

638

639     Previous studies (e.g. Jiang 2002; Li 2004; He 2004; Author-3 2010; Zhang 2011) have

640 consistently identified *yě* as a versatile focus particle that could occur in a variety of syntactic

641 positions. Apart from the sentence final position, as shown in (37) and (38) above, *yě* was also

642 frequently found in topic marking position, as in (39). There was also evidence of *yě* used as a

643 subordinate clause marker, as shown in (40) where *yě* functions as an adverbial subordinator

644 of cause/reason (with the meaning 'as, since, because'), and as shown in (41) where *yě*

645 functions as a temporal/conditional subordinator meaning 'when' or 'if'.

646

647     (39)    <u>此言**也**</u>， 言舍之此而度於天心。

648           *cǐ    yán  yě ，yán shě  zhī  cǐ  ér   duó  yú tiān  xīn.*

649           DEM word TOP say reside 3SG there CONJ assess at heaven mind

650           '**As** for these words, (they) mean that I settle it there and I assess the mind of

651           Heaven.'

652           (*Chéngzhī wénzhī* 成之聞之 strip 33, GD 1998: 168, Cook 2012: 622)

653

654     (40)    <u>怨并之眾人**也**</u>，非能合德於世者也。

655           *yuàn bìng zhī zhòng rén  yě ，fēi  néng  hé  dé   yú shì*

656           resent share 3SG many  people SUB NEG be.able unite virtue at world

657           *zhě   yě*

658           NMLZ SFP

659           '**As** (he) resents sharing it with the masses, (he) is not one who is able to

660           harmonize (one's) virtue with the world.'

661           (*Jǔ zhì wàng tiānxià* 舉治王天下 strip 28, SB8: 225)

662

663     (41)    上好是物也，下必有甚**焉者**

664           *shàng hào shì wù  yě ，xià   bì       yǒu shèn yān zhě*

665           above like this thing SUB below necessarily have more SFP SFP

666           'When/If those above like a particular thing, those below will necessarily be

667           even more into it.'

668           (*Zun deyi* 尊德義 , strips 36-37, GD 1998: 174, Cook 2012: 660)

669

670     A number of studies have also identified *yě* with nominal predicate marking functions

671 (Graham 1967; Peyraube & Wiebusch 1994), and some studies have further suggested that *yě*

672 had also developed into an aspect marker following verbal predicates (Pulleyblank 1994). In

673 this regard, Author-3 (2016) posited that *yě* had developed into a copula, not necessarily of

674 verbal origin.[10] The notion of *yě* being a copula is a very interesting one, since copulas have

675 long been identified (since Aristotle himself) as 'tense-bearers' or 'tense-carriers' (cited in

676 Author-3 2015, 2016; see also Pustet 2003). In other words, copulas are finiteness markers,

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[10] Caboara (2010) cites Pustet (2003) and Stassen (2005) for a definition of copulas as 'supportive items' (or auxiliaries) that need not have verbal origins.

and in sentence final position are often reanalyzed as sentence final particles (or as an integrated part of complex sentence final particles). It is also worth noting here that the range of functions associated with *yě* —namely, nominal predicate marking, topic marking, subordinate clause marking, sentence final aspect-mood marking— overlaps extensively with the range of functions that have been identified for versatile nominalizers, crosslinguistically (Noonan 1997; Shibatani & Awadh 2009; Author-1 & Other 2008; Author-1 et al. 2011; Author-1 & Other 2011; Xu & Matthews 2011; Grunow-Hårsta 2011; *inter alia*).

Our focus in this section is to closely examine the possibility that *yě* may also have once been a nominalizer. Recall examples (33) and (34) discussed earlier in section 3.1 above, reproduced below as (42) and (43). Both examples were earlier used as evidence that *zhě* (者) was used not only as a nominalizer but also as a sentence final particle in Old Chinese. It was noted that when *zhě* (者) occurred after sentence final particle *yě* (也), it necessarily was itself a sentence final particle. We then argued that both sentence final particles *yě* (也) and *zhě* (者) could combine to form complex sentence final particle *yě zhě* (也者).

(42)     亡亡由**也者**。                                          [= (33)]
         *wáng     wáng     yóu     yě     zhě*
         NEG.have  NEG.have  origin  SFP   SFP
         '*There is nothing* that does not have an origin.'
         (*Yucong, san* 語叢三, strip 66, GD 1998: 213, Cook 2012: 898)

(43)     凡物亡不異**也者**。                                      [= (34)]
         *fán     wù     wáng     bú     yì     yě     zhě*
         generally  thing  NEG.have  NEG  different  SFP  SFP
         'In general, *there is nothing* that is not different (i.e. they are all different from each other depending on their inborn nature).'
         (*Xing zi ming chu* 性自命出, strip 8, GD 1998: 179, Cook 2012: 703)

Generally, the outer-most (in this case, the right-most) particle has broader scope. This means that, while sentence final particle *yě* encoded the speaker's 'judgmental' (hence subjective) reading, other sentence final (or right-periphery) particles following *yě* could be used to further modulate the speaker's subjective stance, often positioning the speaker's stance relative to other interlocutors (hence intersubjective, or interpersonal). For example, as seen in (44), consistent with the origin of *yǐ* (已) and *yǐ* (矣) as perfective and modal particles, complex sentence final particle *yěyǐyǐ* (也已矣) could be used to convey a sense of "new realization" on the part of the speaker (see Pullyblank 1995: 118), or a sense of resignation of an adversative or undesirable event/situation beyond the control of the speaker (see Author-1 et al. 2010b: 69).

(44)     不曰如之何，如之何者，吾末如之何**也已矣**。
         *bù     yuē     rú     zhī     hé，     rú     zhī     hé     zhě，     wú     mò     rú     zhī*
         NEG  say  deal  3SG  how  deal  3SG  how  NMLZ  1SG  NEG  deal  3SG
         *hé     yěyǐyǐ*
         how  SFP
         'If a man does not continually ask himself, 'What am I to do about it, what am I to do about it', I do not know what to do about him **then**.'
         (*Lunyu*, 15/16, Warring States; cited in Pulleyblank 1995: 111 and Author-1 et al. 2010b: 69)

In the case of *yě zhě* (也者), as seen earlier in (42) and (43) above, semantic harmony between the two assertive sentence final particles *yě* (也) and *zhě* (者) yielded an even stronger assertive particle *yě zhě* (也者) that emphasizes the strength of the speaker's epistemic claim within the *wáng*-type (亡 'there is nothing that XP') constructions discussed earlier (e.g. '*there is nothing—in effect, zero likelihood—that does not have an origin*' and '*there is nothing—in effect, zero possibility—that is not different*').

We have earlier identified that sentence final particle *zhě* was derived from nominalizer *zhě* via an insubordination process whereby *zhě*-complement clauses (i.e. a subtype of *zhě*-nominalization clauses) were reanalyzed as finite structures, triggered by ellipsis of the subject (and the copula, if there is one) in the main clause (see section 3.1). The question we need to address here is whether there was a similar nominalizer > sentence final particle development for *yě*. Analysis of example (45) below, reproduced from (33) and (42) above, suggests the possibility that *yě* could have earlier been a nominalizer.[11] Note that light gray brackets represent semantic scope expansion that results in semantic bleaching, which facilitates syntactic rebracketing that gives rise to new grammatical and/or pragmatic functions. Nevertheless, the earlier semantics of the versatile particle is often retrievable to varying degrees depending on its context-of-use, consistent with the Principle of Persistence in language change (Hopper 1991).

(45) a.　[STANCE [NEG·EXST 亡　　　[COMP [ _ 亡由　　　　　　 ] 也 NMLZ]　　 ] 者 SFP]
　　　　　[STANCE [(There is) nothing [*that* [ _ does not have an origin] 也　　　 ] 者 SFP]

b.　[STANCE [NEG·EXST 亡　　　[COMP [ _ 亡由　　　　　 ] _NMLZ] 也 FOC ] 者 SFP]
　　　[STANCE [(There is) [***nothing*** [*that* [ _ does not have an origin] _NMLZ ] 也　 ] 者 SFP]

c.　[STANCE [NEG·EXST 亡　　　[COMP [ _ 亡由　　　　 ] _NMLZ ] _ FOC ] 也者 SFP]
　　　[**STANCE** [***(There is)*** [***nothing*** [*that* [ _ does not have an origin] _NMLZ] _ FOC ] 也者 SFP]
　　　'*Clearly, there is nothing* that (is) without an origin.'

=> d.　[STANCE.insubordinated.nominalized.clause 亡　　 [亡由　　　　 ] 也者 SFP]
　　　[**STANCE**　　　　　　　　　 [***Nothing*** [(is) without an origin] 也者 SFP]
　　　'*Clearly, nothing is without an origin.*'

As seen in (45a), *yě* (也) could have been a nominalizer derived from a general noun that could often be loosely translated as 'thing'. As a nominalizer in utterance-final position, *yě* would have frequently been recruited to host the speaker's sentence final prosody. In existential 'there (be)' constructions such as (45), the semantic prosody would typically be assertive and emphatic, with the information focus on the entity represented by the *yě*-nominalized clause. Such contexts would help facilitate the reanalysis of nominalizer *yě* as a sentence final focus particle, as in (45b). This analysis would still be consistent with our earlier analysis that *zhě* (者) at the right-most periphery would be an (inter)subjective sentence final particle. When sentence final *yě* (也) is followed by sentence final *zhě* (者), integration results in a complex sentence final particle *yězhě* (也者) that can have both subjective and intersubjective interpretations, as in (45c), where the strong assertive reading associated with *yě zhě* is used to encode the speaker's strong epistemic commitment to the proposition being uttered (subjective evaluation), and in addition is used to influence the addressee to align favorably with the speaker's point of view (intersubjective or interpersonal move). This account which posits the existence of nominalizer *yě* and its reanalysis as a focus particle and subsequently as part of a complex sentence final particle is essentially a story of semantic scope expansion—from the

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[11] A similar analysis applies to examples (34) and (43).

referential domain to the non-referential (pragmatic) domain. As noted a number of times earlier, such developments are robust and well-attested across the languages of the world (see Author-1 et al. 2011 and papers therein, in particular Horie 2011 for Japanese and Rhee 2011 for Korean; see also Horie 2008 and Rhee 2008).

From a syntactic perspective, the extended use of *yě* (也) from nominalizer to focus particle is a case of scope expansion, involving syntactic raising from (45a) to (45b) to (45c), often with the formation of complex sentence final particles that could be interpreted with various degrees of retention of the original semantics of *yě* (也) and *zhě* (者). The reanalysis from (45a) to (45b) to (45c) constitutes instances of syntactic 'relabeling', and can result in simpler and more stable finite structures (see Whitman 2000 for more discussion and additional examples on relabeling phenomena).

Essentially, one could posit sequences of syntactic 'raising', whereby focus particle *yě* expands its scope from a subjectivity marker to join up with sentence final particle *zhě* to form a complex sentence final particle *yězhě* that is capable of rendering both subjective and intersubjective readings. The complexity of covert structures such as (45c) would encourage 'relabeling' to take place, such that we often obtain a simpler structure such as (45d).

Earlier studies within generative grammar have often focused on syntactic 'raising' phenomena; here we propose a scenario further involving 'syntactic co-habitation' and 'semantic sharing'. That is, in the development of sentence final particle *yě* to complex sentence final particle *yě zhě*, we see a scenario of '*yě*-raising' followed by '*yě-zhě* fusion', with varying degrees of retention of their individual lexical semantics. Consistent with the Principle of Persistence that is widely observed in grammaticalization studies (Hopper 1991), there is often some retention of earlier semantics for both particles *yě* and *zhě*, which helps to account for the ambiguity and flexibility in interpretation often seen in complex sentence final particles such as *yě zhě* that often express both subjective and intersubjective readings. Such ambiguity and flexibility in interpretation is also widely attested in numerous studies within the functional linguistics paradigm, which frequently note that the interpretation of many (complex) sentence final particles are fluid and dependent on context-of-use. In Cantonese, for example, sentence final particle *aa¹* (吖) has been identified in previous literature with a wide range of functions depending on context, including expressing a suggestion, a request, a command, or even a protest (Leung 2005; Cheung 2007; Matthews & Yip 2011; Chor 2016).

### 3.3 Traces of attitudinal nominalizers in Old Chinese regional dialects

Recent observations by Author-3 (2015) suggests that there may have been other attitudinal nominalizers in Old Chinese as well, among them *zhān* (旃) and *yì* (殹). Author-3 identifies these versatile particles as copulas and topic marking particles, similar in function to *yě* (也). This observation raises another interesting question: what is the relationship between nominalizer *yě*, topic marking *yě*, and copula *yě*? Answers to this question can further shed light on the possibility that versatile particles *zhān* (旃) and *yì* (殹) may also have been attitudinal nominalizers in Old Chinese.

While the use of *yě* (也) could be found in bamboo manuscripts associated with the large and powerful ancient state of Chu (e.g. the Guodian Manuscripts and the Shanghai Musuem Manuscripts), the uses of *zhān* (旃) and *yì* (殹) were more commonly associated with other states such as Qin and the smaller frontier state of Zhongshan (Author-3 2015: 8). Similar to *yě* (也), *zhān* (旃) has also been identified in the literature as a focus marker (Yue 2004), and was also frequently used as a subjective and assertive 'judgmental' sentence final particle in Old Chinese, as seen in (46).

821 (46) 余知其忠信旃。

822 *yú  zhī  qí       zhōng    xìn   zhān*

823 1SG  know  3SG.GEN  trustworthy  loyal  ZHAN

824 'I know that he is trustworthy and loyal.'

825 Lit. 'I know of his trustworthiness and loyalty.'

826 (Lín 2003: 247; Takashima 1997: 190; Author-3 2015: 8)

In (46), much like *yě* (也), *zhān* (旃) can be interpreted as either a nominalizer, a complementizer (equivalent to English *that* or *of*), or an assertive sentence final particle. As nominalizer, *zhān* (旃) can be analyzed as the nominalizer for the attributive properties *zhōng* 'trustworthy' (忠) and *xìn* 'loyal' (信) within the complement clause *qí zhōng xìn zhān* 'his trustworthiness and loyalty' (其忠信旃), as in (46a'). As complementizer, *zhān* (旃) can be analyzed as the nominal marker of the object complement clause following the complement-taking verb *zhì* 'know' (知), as highlighted in (46b'). As sentence final particle, *zhān* (旃) can be reinterpreted as the head-final nominalizer hosting the speaker's sentence final prosody and hence also expressing the speaker's evaluative and (inter)subjective stance, as in (46c'). Essentially, we see syntactic rebracketing and relabeling as the semantic scope of *zhān* (旃) expands from the referential domain (nominalizer) to textual (complementizer) and pragmatic (sentence final mood marker) domains.

(46') a. [stance [余知 matrix.clause [COMP [其 DET [[忠信          ]旃 NMLZ      ]]    ]]     ]
          [     [I know         [(of) [his    [[trustworthy and loyal ]-**ness/-ty** NMLZ]]   ]]     ]

b. [stance [余知 matrix.clause [COMP [其 DET [[忠信          ] _ NMLZ  ]] 旃 COMP ]]     ]
          [     [I know       **[of** [his    [[trustworthy and loyal ]-ness/-ty]] 旃      ]]     ]

c. [stance [余知 matrix.clause [COMP [其 DET [[忠信          ] _ NMLZ  ]] _ COMP ]] 旃 SFP ]
          [     [I know         [(of) [his    [[trustworthy and loyal ]-ness/-ty]]         ]] 旃      ]
          (i) '*Certainly, I know of his trustworthiness and loyalty.*'
          (ii) * '*Certainly, I know he is trustworthy and loyalty.*'

In example (46), as highlighted in (46') above, the availability of third person possessive pronoun *qí* 'his' ((其) also contributes to the nominal and referential interpretation of the phrase *zhōng xìn* 'trustworthy (and) loyal' (忠信), and this also facilitates the 'rebracketing' (or 'raising') of *zhān* (旃) from nominalizer to complementizer to sentence final mood particle. Note, however, that retention of the third person possessive pronoun *qi* (其) blocks insubordination of the nominal predicate *qí zhōng xìn* 'of his trustworthiness and loyalty' (其忠信), unlike the *yě*-nominalization construction discussed earlier in (45), where the bare form leaves more room for a versatile nominalizer to expand freely across functional domains.

Given that the etymology of *zhān* could be traced to a lexical noun meaning 'flag' or 'banner' associated with military battles[12], a nominalizer-to-mood-marker account is highly viable. Such an account is highly consistent with numerous crosslinguistic studies that bear testimony to general nouns developing into nominalizers and sentence final mood markers, among them Tibeto-Burman *-pa/-ba/-wa* '(male) person' (Noonan 1997), Japanese *mono*

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[12] See the lexical entry on page 482 of *Kangxi Cidian*, a dictionary compiled from 1710 to 1716 during the reign of Emperor Kangxi. This dictionary also identifies *zhān* with a *zhi*-type pronoun and mood particle usage.

865 'thing' (Fujii 2000; Horie 2008), Korean *kes* 'thing' (Rhee 2008), Mongolian *yum* 'thing'
866 (Other & Author-1 2016).

867 As seen in (47), similar to the case of *yě* discussed earlier in section 3.2, *zhān* can be (旃)
868 interpreted either as a nominalizer that gives rise to lexical nominalization *zhì zhān* 'wisdom',
869 as highlighted in (47a'), or as a nominal predicate marker as highlighted in (47b'), or as an
870 assertive sentence final particle for the pseudo-cleft type construction *kè yǒu gong, zhì zhān*
871 'That he could have such a great achievement is due to his discernment', as highlighted in
872 (47c'). In this respect, the context-dependent functions of versatile particle *zhān* (旃) also bear
873 a close resemblance to those of versatile nominalizer *zhě* (者).

874

875 (47) 克有功，智旃。
876 *kè yǒu gong ， zhì zhān.*
877 be.able have achievement wisdom ZHAN
878 'That (he) could have such a great achievement is due to his discernment.'
879 (Lín 2003: 303; Takashima 1997: 188; Author-3 2015: 8)

880

881 (47') a. 克有功，[[智旃 NMLZ]lexical nominalization 。
882 [TOPIC/SUBJECT That (he) could have such a great achievement
883 [PREDICATE (is due to his) **[discernment]NMLZ** ]]

884

885 b. 克有功，[[智旃 NMLZ]nominal predicate marker 。
886 [TOPIC/SUBJECT That (he) could have such a great achievement
887 **[PREDICATE (is due to his) [discernment] _NMLZ ] nominal predicate marker ]**

888

889 c. [克有功，[[智]旃]SFP 。
890 **[[**TOPIC/SUBJECT That (he) could have such a great achievement
891 [PREDICATE (is due to his) [discernment] _ NMLZ ] _ nominal predicate marker]SFP**]**

892

893 Compared to *zhān* (旃), *yì* (殹) was attested in a wider range of locations, with previous
894 studies identifying extensive overlaps between the functions of *yì* (殹) and *yě* (也) (e.g. Onishi
895 2001; Zhang 2011; Author-3 2015), with the most prominent function being nominal predicate
896 marker, as illustrated in (48), along with productive use as a topic marker or an adverbial
897 subordinate clause marker expressing contextual information such as time, situation or
898 condition, as in (49) and (50). In this sense, the functions of *yì* (殹) also overlap extensively
899 with those of versatile nominalizer *zhě* (者).

900

901 (48) 此皆大罪殹。
902 *cǐ jiē dà zuì yì.*
903 DEM all great crime YI
904 'All these are great crimes.'
905 (*Yǔshū* 語書 strip 7, SHD 1990: 13; cited in Author-3 2015: 9)

906

907 (49) 非史子殹， 毋敢學學室。
908 *fēi shǐ zǐ yì ，wú gǎn xué xué shì.*
909 NEG clerk son YI must.not dare study study room
910 '**When/If** (persons) are not sons of clerks, they must not venture to study in
911 the study room.'
912 (*Nèi shǐ zá* 內史雜 strip 191, SHD 1990: 63, Hulsewé 1985: 87; also cited in

Author-3 2015: 9)

(50)  其大廐，中廐 ， 宮廐馬牛殹，
     *Qí      dà jiù,   zhōng jiù ， gong jiù    mǎ   niú  yì ，*
     3SG.GEN big stable central stable palace stable horse ox  YI
     以其筋，革 ，角及其價錢效。
     *yǐ qí      jīn,  gé,  jiǎo jí  qí       jià   qian xiào.*
     use 3SG.GEN sinew hide horn and 3SG.GEN value cash exchange
     '**When/Where/If** horses or oxen of the great stables, the Central Palace stable
     or the palace stables are concerned, their sinews, hides and horns, as well as
     their value in cash, are to be handed over.' (Hulsewé's translation, modified)
     (*Qín lù shíbā zhǒng*, 秦律十八種, *Jiù yuàn lù* 廄苑律, strip 18, SHD 1990:
     24, Hulsewé 1985: 87; also cited in Author-3 2015: 9)

Author-3 (2015) notes that sentence final *zhān* (旃) and *yì* (殹), along with *yě* (也), could also be reinterpreted as a copula. Such reanalysis was closely associated with equational and specificational constructions. As illustrated in (51) below, based on the example of sentence final *zhān* from (47) above, a nominal predicate marker in sentence final position (51a) can be reinterpreted as a sentence final copula (the subject-predicate linker in 51b) via semantic scope expansion and syntactic re-bracketing. The function of the copula is purely that of a syntactic linker, and differs subtly from that of the sentence final mood particle (51c), which focuses more on the speaker's subjective evaluation of the proposition in the utterance expressed in (51a).

(51) a.  [SUBJECT 此皆      [COP   [PREDICATE [[大罪      ]殹nom.pred.marker ]]      ]      ]
         [All these      [(are) [        [[great crimes] 殹          ]]      ]      ]

     b.  [SUBJECT 此皆      [COP   [PREDICATE [[大罪      ] _ nom.pred.marker ]] 殹copula ]      ]
         [All these      **[are** [        [[great crimes] _          ]] 殹      ]      ]

     c.  [stance [SUBJECT 此皆 [COP   [PREDICATE [[大罪      ] _ nom.pred.marker ]] _ copula ] 殹 SFP ]
         [       [All these      [(are) [        [[great crimes] _          ]] _          ] 殹      ]

In other words, whereas the construction with sentence final particle *zhān* in (51c) represents an interaction between the referential (propositional) domain and the (inter) subjective (pragmatic) domain, the construction with copula *zhān* in (51b) represents the emergence of a grammatical means to formally identify the relationship between a subject NP and its nominal predicate, distinguishing the latter from verbal predicates (see Author-3 2016). This copula (or 'linking') syntactic function emerged later in the history of versatile particle *yě*, with the copula uses of *yě* emerging toward the end of Late Old Chinese and subsequently replaced by clause-medial copulas such as *shì* (是) which survives to present-day Mandarin, with cognate copulas attested in other dialects as well, such as *si* in Southern Min varieties (e.g. Chaozhou) and *haih* in Yue varieties (e.g. Cantonese).

## 5. Conclusion

In this paper we have traced the development of a number of versatile particles in Old Chinese, in particular *zhě*, *yě*, *zhān* and *yì*, tracing their possible origins from nominalizers, which would account for their prolific use as nominal predicate markers, topic markers, subordinate clause

markers, and sentence final mood markers, among other functions. Some of these particles appear to be of nominal origin, as in the case of *zhān* (旃 'military flag or banner'), while the etymology of particles such as *zhě*, *yě* and *yì* are unknown. Despite the current dearth of information regarding their etymology and the early stages of their development as nominalizers, their frequent occurrence in sentence final position paved the way for their use as attitudinal nominalizers, whereby these versatile nominalizing elements come to host the speaker's subjective stance. Oftentimes, these attitudinal nominalizers combine with other sentence final particles to give rise to complex sentence final particles that frequently also encode the speaker's interpersonal (intersubjective) stance. This tendency whereby semantically bleached referential entities are recruited for non-referential purposes (within both the textual and pragmatic domains) is robust, and this development is often reiterated or recycled over time and across dialects, giving rise to modern descendants such as sentence final mood markers in Mandarin (e.g. *de* (的) and complex sentence final particles *dene* (的呢), *deya* (的呀), *dela* (的啦), *deba* (的吧) and *de'a* (的啊), among others), as well as in other Sinitic varieties (e.g. Cantonese *g*-particles such as $ge^3$ (嘅), $ge^3lo^3$ (嘅囉), $ge^3le^1$ (嘅呢) and $ge^3ze^1$ (嘅姐); Chaozhou *kai* and Taiwan Southen Min *e* (e.g. *e* $le^{55}$).

It is worth noting that some of these versatile nominalizers appear to have been derived from general nouns that have developed classifier functions as well. The Cantonese $ge^3$ particles, as well as the Chaozhou *kai* and Taiwan Southern Min *e* particles, are good examples of such classifier-type nominalizers. Future research can further investigate if there are parametric differences in the range of functions and pragmatic nuances of sentence final particles derived from different etymological sources. Such studies will be valuable in helping us develop a more comprehensive typology of attitudinal nominalizers, particularly as we compare the Sinitic varieties with those from other language families, among them Tibeto-Burman and Austronesian languages which also frequently recruit nominalizers to form sentence final mood markers (e.g. Simpson 2008; Other & Author-1 2016b).

Both strands of studies—that is, investigations into the sequencing of complex sentence final mood markers and their diachronic development, as well as comparisons between the grammaticalization trajectories and range of attitudinal functions between noun-based and classifier-based nominalizers—will provide valuable additional insights for studies in diachronic and cartographic syntax as well as studies that examine what happens at the interface between grammar and discourse.

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