

The grammaticalization of verbs of location movement into noun-phrase conjunctions in Archaic Chinese

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Previous studies of the grammaticalization paths of Chinese Noun-Phrase Conjunctions (NP-AND) have mainly focused on their development from comitative verbs, as in the cases of 與 *yú* ‘to be together with’, 共 *gòng* ‘to share’, 和 *hé* ‘to mingle’, and 同 *tóng* ‘to be the same’ > ‘to accompany’. This study focuses on the development of NP-AND from verbs of location movement (位移動詞, with the feature set [+verb, +motion, +goal]), such as 于 *yú* ‘to go to’, 越 *yuè* ‘to jump over to’, 暨 *jì* ‘to arrive at’, and 及 *jí* ‘to reach’, identifying changes that occurred in pre-Archaic Chinese (used from the 14th to the 11th c. BC), early Archaic Chinese (used from the 10th to the 6th c. BC), and late Archaic Chinese (from the 5th to the 2nd c. BC).

To elucidate the origin and the grammaticalization path of each verb indicating goal of motion, this study examines their occurrences in excavated texts, such as the Oracle-Bone Inscriptions and Bronze Inscriptions, and in Archaic Chinese transmitted texts, such as *The book of documents* (*Shàngshū* 尚書), *The book of odes* (*Shījīng* 詩經), and *Zuo’s commentary* (*Zuǒzhuàn* 左傳). Based on this data, the study analyzes the core meaning of each verb and their grammaticalization paths. In addition, possible etymological relationships among 于, 越, 暨, and 及 are investigated. The grammaticalization path of each verb into an NP-AND can be formulated as V [+motion, +goal] > end point of a scope (from X to Y) > additive particle > NP-AND. Finally, cross-linguistic parallels are adduced to support the plausibility of the proposed grammaticalization path.

Keywords: Archaic Chinese, noun-phrase conjunction (NP-AND), grammaticalization, verbs of location movement, end point of a scope, additive particle

1. The derivation of Noun-Phrase Conjunctions (NP-AND)

The following subsections review previous studies of the development of NP-AND in the world's languages and in the history of Chinese.

1.1 Studies on the development of an NP-AND in the world's languages

According to Heine & Kuteva (2002: 43, 80–82, 120–121, 302–304), there are four sources of an NP-AND that are frequently observed among the world's languages: (1) 'also, too, even', (2) comitative, (3) dual, and (4) 'two' (numeral). This subsection presents examples of each source.

In Cayuga,¹ *hni'*, originally an adverb meaning 'also' or 'too', later grammaticalized into an NP-AND. Example (1) illustrates *hni'* used as an adverb and as an NP-AND.²

- (1) a. *Akitakrá hni' shē nyó: nātō:tá:ke:.*
 I:fell also as far I:came:back
 'I fell on the way back, too.'
- b. *Junior, Helen, Hercules hni'*
 Junior Helen Hercules also
 'Junior, Helen, and Hercules'

In (1a), *hni'* is used as an adverb meaning 'also', while it is used as an NP-AND in (1b).

The grammaticalization of a comitative adposition (that is, preposition or postposition) into an NP-AND appears to be very common cross-linguistically. Examples of such cases include Ewe *kplé* 'with', comitative preposition > 'and', NP-AND,³ and Baka *tɛ* 'with', comitative preposition > 'and', NP-AND.⁴ Example (2) is from Ewe.⁵

1. Cayuga belongs to the Iroquoian language family. It is spoken by indigenous peoples of North America. For details, see https://en.wikipedia.org/wiki/Cayuga_language.

2. Heine & Kuteva (2002: 43), originally from Mithun (1988: 341–342).

3. Ewe is a Niger-Congo language spoken mainly in southeastern Ghana by approximately 6.5 million people (according to 2017 census) as either their first or second language. For details, see https://en.wikipedia.org/wiki/Ewe_language.

4. Baka is a dialect cluster of Ubangian languages spoken mainly in Cameroon and Gabon. It has approximately 70,000 speakers (cited 1988–2010). For details, see https://en.wikipedia.org/wiki/Baka_language.

5. Quoted from Heine & Kuteva (2002: 80). For more examples of an NP-AND derived from a comitative, see Heine & Kuteva (2002: 80–82). For detailed discussion on the grammaticalization from comitative into NP-AND, see Stassen (2000).

- (2) a. *é-yi kplé wo.*
 3SG-go with 2SG:OBJ
 'She went with you.'
 b. *Kofí kplé Kosi vá égbé.*
 Kofi and Kosi come today
 'Kofi and Kosi came today'

In (2a), *kplé* is used as a comitative preposition, while it is grammaticalized into an NP-AND in (2b).

A dual marker can also be the source of an NP-AND. An example of such a case is Kxoe *-tcà*, third person dual > NP-AND,⁶ shown in (3).

- (3) a. *á- tcà*
 DEM 3:M:DU
 'they (two male referents)'
 b. *xáò- tcà /'é- tcà*
 Hippopotamus-3:M:DU fire-3:M:DU
 'the hippo and the fire' (adopted from Heine & Kuteva 2002: 120)

In (3a), *tcà* is used as a third person masculine dual marker; in (3b) it is used as an NP-AND, appearing after both NPs that it coordinates.

Finally, the word 'two' (numeral) can also be grammaticalized into an NP-AND, sometimes via an intermediate stage as a dual marker. For instance, in Alyawarra,⁷ *athirra* means 'two' (numeral). It first grammaticalized into a dual number marker and later further developed into an NP-AND. In Aranda (spoken in Australia), *tara* 'two' developed into a marker of noun phrase coordination, as illustrated in (4).⁸

- (4) *Ara arranga tara*
 Red:kangaroo euro two
 'the red kangaroo and the euro' (adopted from Heine & Kuteva 2002: 303)

So far, it is illustrated that, cross-linguistically speaking, (1) 'also', (2) comitative, (3) dual, and (4) 'two' (numeral) are frequently grammaticalized into NP-AND. The following subsection summarizes studies on the development of NP-AND in the history of Chinese.

6. Kxoe (also rendered as Khwe) is a dialect continuum of the Khoe family spoken in southern Africa, including Namibia, Angola, Botswana, South Africa, and parts of Zambia, by approximately 8,000 speakers (2011 census). For details, see https://en.wikipedia.org/wiki/Khwe_language.

7. Alyawarra is spoken by indigenous Australian people of the Northern Territory, Australia. For details, see <https://en.wikipedia.org/wiki/Alyawarre>.

8. For more examples of 'two' (numeral) grammaticalized into an NP-AND via a possible intermediate stage of dual, see Heine & Kuteva (2002: 302–304).

1.2 The development of an NP-AND in the history of Chinese

Studies of the grammaticalization paths of Chinese Noun-Phrase Conjunctions (NP-AND) have mainly focused on their development from comitative verbs, as in the cases of 與 *yú* 'to be together with', 和 *hé* 'to mingle', 並 *bìng* 'to combine', 共 *gòng* 'to share', 同 *tóng* 'to be the same', and 跟 *gēn* 'to follow'. In the Chinese cases, a comitative verb is grammaticalized into an NP-AND via an intermediate stage of a comitative preposition, which is, as explained in § 1.1, a very commonly observed grammaticalization path in other languages, too.⁹

Liu & Peyraube (1994) investigated the grammaticalization path of NP-AND from Archaic to Modern Chinese.¹⁰ They argued that 及 *jí* 'to reach' and 與 were frequently used as NP-AND in Archaic Chinese (11th–3rd c. BC), especially in Late Archaic Chinese (5th–3rd c. BC), and, less frequently, into the Early Medieval Chinese period (3rd–7th c. AD).¹¹ Each verb grammaticalized into an NP-AND via an intermediate stage of a preposition. Liu & Peyraube followed Zhou (1989) and Jiang (1990) in their account of the semantic difference between

9. 和 and 跟, originally verbs, are frequently used as comitative prepositions and as NP-AND in modern standard Chinese. These two usages of 跟 are shown in the following examples (adopted from Liu & Peyraube 1994: 180).

- (i) 我 跟 他 借 錢 了。 [跟: preposition]
 Wǒ gēn tā jiè qián le.

I from him borrow money ASP.PRT
 'I borrowed money from him.'

- (ii) 他們 參觀 了 凡爾賽 跟 羅浮宮。 [跟: NP-AND]
 Tāmen cānguān le Fáněrsài gēn Luófúgōng.
 They visit ASP.PRT Versailles and Louvre
 'They visited Versailles and the Louvre.'

10. More studies on the grammaticalization path from a comitative verb into a comitative preposition and further grammaticalization from a comitative preposition into an NP-AND include Peyraube (1996), Yu (1996), Wu (2003), Wang (2011), Jiang (2012), and others. Yu (1996) investigated the origin and grammaticalization of 共, 連 *lián* 'to link up with, to connect', 和, 同, and 跟. Wu (2003) investigated the grammaticalization path of 與, 及, 將 *jiāng* 'to take, to bring', 共, 和, 同, and 跟. Wang (2011) explained the grammaticalization path of 暨 *jì* 'to arrive at', 與, and 及.

11. It is noteworthy that although various NP-ANDs have existed at different times, the most frequently used device for NP-AND in Chinese is simple juxtaposition without any overt conjunctive marker (i.e. asyndetic). For instance, according to Tao (1991) (quoted in Liu & Peyraube 1994: 185), 95% of NP-AND in *Shishuo xinyu* 世說新語 are expressed in simple juxtaposition. In Late Medieval Chinese, the proportion of simple juxtaposition decreased, yet still 82% are expressed in simple juxtaposition, as in *Dunhuang bianwen* 敦煌變文 (8th–10th c.) (Tao 1991, quoted in Liu & Peyraube 1994: 187).

與 and 及: in the case of 及, the first NP is more salient than the second NP, while both NP1 and NP2 have an equal status in the case of 與.¹²

During the early period of Late Medieval Chinese (7th–13th c. AD), the most frequently occurring NP-AND was 及; 與 and 並 were also used, as reflected in *bianwen* 變文 (literally, ‘transformation texts’).¹³ 和 ‘to mix up’ started to be used as a conjunction from around mid-Tang times. From Song times (10th–13th c.), 和 and 共 started to be frequently used. In Modern Chinese (14th–18th c.), 與 and 及 were used only vestigially, and 和 and 共 continued to be used as conjunctions. In contemporary Chinese, 跟 and 同 started to be used as NP-ANDs, and are still frequently used in modern standard Chinese and Chinese dialects.

2. The development of NP-AND from verbs of location movement in Archaic Chinese

In pre-Archaic Chinese (used from the 14th to the 11th c. BC) and Archaic Chinese (used from the 10th to the 2nd c. BC), verbs of location movement, such as 于 *yú* ‘to go to’,¹⁴ 越 *yuè* ‘to jump over to’, 暨 *jì* ‘to arrive at’, and 及 *jí* ‘to reach’, are frequently used as NP-AND. This is shown in the following examples.¹⁵

- (5) 告 汝 德 之 說 于 罰 之 行。¹⁶
 Gào rǔ dé zhī shuō yú fá zhī xíng.

Tell you virtue ATR principle NP-AND punishment ATR application

‘(I) will tell you the principles of virtue *and* the application of the punishments.’ (Documents “Kang gao 康誥”, Karlgren (1950:42); Qu (1975:104))

Both Qu (1975:104) and Wang (1982:164) interpreted 于 as 與 ‘and’, following the interpretation of *Jingzhuan shici* 經傳釋詞.¹⁷

12. For more details on the functional differences between 與 and 及, see Xu (1981), Zhou (1989), Jiang (1990), and Chang (2018; 2019). For the possible regional differences between them, see Onishi (1998) and Zhang (2012).

13. The term *bianwen* refers to semi-vernacular writings in China from the eighth to the tenth centuries AD preserved at Dunhuang. Tao (1991) found 65 occurrences of 及, 22 occurrences of 與, 11 occurrences of 並, and one occurrence of 共 in these texts.

14. There is controversy whether 于 was a verb or was only used as a function word in pre-Archaic and early Archaic Chinese. For discussion of this problem, see §3.1.

15. English translation follows Karlgren (1950). Italics are my modifications.

16. Example quoted from Zhou (1961:113, vol. 1).

17. *Jingzhuan shici* (Wang 2014:24): “告女德之說于罰之行 [.....] 言告汝德之說與罰之道也。”

- (6) 王 若 曰：「猷！大 誥 爾 多 邦 越 爾
Wáng ruò yuē: “Yóu dà gào ěr duō bāng yuè ěr
The king thus spoke Oh! greatly tell you numerous states NP-AND you
御事。」
yùshì.”
managers of affairs
‘The king spoke thus: “I will greatly tell you, (princes of) the numerous states,
and to you, managers of affairs.”’
(*Documents* “Da gao 大誥”, Karlgren (1950: 36); Qu (1975: 89))

Qu (1975: 89) interpreted 越 as 與 ‘and’. Wang (1982: 139) also interpreted 越 as a conjunction meaning 和 ‘and’. Jin (2010: 152) interpreted it as 及 ‘and’, which is also a high-frequency NP-AND appearing in Archaic Chinese, as is explained in § 1.2.

- (7) 帝 曰：「咨！汝 義暨 和。朞 三
Dì yuē: “Zī rǔ Xī jì Hé. Qī sān
The emperor said Oh! you Xi NP-AND He a period of time three
百 有 六 旬 有 六 日……」
bǎi yǒu liù xún yǒu liù rì……”
hundred and six ten and six days
‘The emperor said: “Oh, you Xi and He. The year has 366 days……”’
(*Documents* “Yao dian 堯典”, Karlgren (1950: 3); Qu (1975: 4))

Kong Anguo 孔安國 (fl. 126–117 BC), in his commentary (*zhù* 注), interpreted 暨 as 與 ‘and’ (暨, 與也). Both Qu (1975: 5) and Wang (1982: 6) followed this interpretation.

In the following example, 及 is clearly used as an NP-AND: it is linking two nouns with equal semantic prominence.¹⁸

- (8) 六 月 食 鬱 及 藟， 七 月 亨 葵
Liù yuè shí yù jí yù, qī yuè pēng kuí
sixth month eat Yu plant NP-AND wild vine seventh month boil Kui plant
及 菽。
jí shū.
NP-AND pulse
‘In the sixth month we eat wild plums and cherries, in the seventh month we
boil mallows and beans.’ (*Odes* 154.6 “Qī yue 七月”, Waley (1996: 212))

Only a few scholars have discussed the grammaticalization from a verb indicating location movement (位移動詞) into an NP-AND, mainly based on the case of

18. English translation of *The book of odes* follows Waley (1996).

及 ('to reach' > 'and'). Wang (2011: 131) argued that 及 used as an NP-AND was directly derived from its verbal usage appearing in the form [自.....及.....]. Her argument is plausible; this paper further illustrates that the grammaticalization of verbs of location movement into NP-AND appears frequently in pre-Archaic and Archaic Chinese materials.

The use of 于, 越, 暨, and 及 as NP-AND can all be explained as the same process of grammaticalization from a verbal usage. The grammaticalization path of each verb into an NP-AND can be formulated as V [+motion, +goal] > marker of the end point of a scope (from X to Y) > additive particle (corresponds to English 'also', 'too', 'even') > NP-AND. Further, this grammaticalization is not restricted to Archaic Chinese. Rather, it is commonly observed in other languages, suggesting that such a grammaticalization path is very plausible cross-linguistically.

3. The grammaticalization path of 于 *yú*, 越 *yuè*, 暨 *jì*, and 及 *jí* into NP-AND

This section explains the step-by-step grammaticalization path of 于, 越, 暨, and 及, all of which are verbs of location movement, into NP-AND.

3.1 Stage 1: No grammaticalization

At this stage, no grammaticalization has occurred and 于, 越, 暨, and 及 appear in their original verbal usage. They appear in the form [subject+于/越/暨/及+place] and their semantic feature set can be described as [+verb, +motion, +goal].

3.1.1 于 *yú*

There is some controversy surrounding the question of whether 于 is, in fact, used as a verb in the Oracle-Bone Inscriptions (OBI) in some instances, in addition to its usages as a function word.¹⁹ Xigui Qiu (2010: 422–434) argued that there are at least two indubitable cases where 于 can only be interpreted as a verb meaning “到...去” ('reach to...'). In one, 于 appears in the form [person+于+place]; in the

19. Guo (1997) and Fang (2015: 277–281) also elaborated that there are cases in which 于 must be interpreted as a verb meaning 往 'to go to' in the OBI and in early Archaic Chinese texts, such as *The book of odes* and *The book of documents*.

other, 于 appears in the form [令 ‘to command’/ 呼 ‘to call on’+person+于+place]. Examples include:²⁰

- (9) 王寅 卜， 王 于 商。
 Rényín bǔ, wáng yú Shāng.
 renyin crack making his Majesty go to Shang
 ‘Crack making on the renyin day: His Majesty should go to Shang.’
 (Heji 33124.1, adopted from Qiu (2010:428))

- (10) 貞：呼 去伯 于 冥。
 Zhēn: hū Qùbó yú Míng.
 tested command Qubo go to Ming
 ‘Tested: (One will) command Qubo to go to Ming.’
 (Heji 635.10, adopted from Qiu (2010:428))

There are sizable numbers of examples where 于 is used as a verb as late as in pre-classical Chinese texts such as *The book of documents* (*Shàngshū* 尚書) and *The book of odes* (*Shījīng* 詩經). The following example is one such.

- (11) 之 子 于 歸， 遠 于 將 之。
 Zhī zǐ yú guī, yuǎn yú jiāng zhī.
 this youngster go to return far go to escort her
 ‘Our lady that goes home. Far we go with her.’
 (*Odes* 28.2 “Yanyan 燕燕”, Waley (1996: 25))

The first 于 is followed by another verb 歸 ‘to return’, making a serial verb construction. 于 is the verb, and 歸 can be analyzed as a complement indicating purpose. 于歸 can be interpreted as ‘goes in order to return to her permanent home (=to get married)’. The second 于 is modified by an adverb 遠 ‘far’, which strengthens the argument that 于 is used as a verb.

(12) shows an example of 于 used as a verb in *Documents*.

20. Mei (2018: 315–320) agreed that in some cases 于 was used as a verb meaning 去到 or 往到 (both meaning ‘to go to’) in the OBI. For instance, 于 appearing in the form [[于+NP]+V] is used as a verb, and the sentence is interpreted as a serial verb construction. 于 appearing after 使 (meaning 派遣 ‘to dispatch’) in the form [使+person+于+place] is also used as a verb. However, he argued that 于 in 王于商 cannot be interpreted as a verb. This sentence is originally 王入于商 and 入 is omitted. Therefore, 于 in this case must be understood as an allative marker.

In sum, there is general agreement that 于 was used as a verb meaning ‘to go to’ in the OBI alongside its occurrences as a function word with a wide range of usages. There are some disagreements, however, as to the cases in which it should be interpreted as a verb and the cases in which it should be interpreted as an allative marker.

- (12) 惟三月，周公初于新邑洛，用告商
 Wéi sān yuè, Zhōu gōng chū yú xīn yì Luò, yòng gào Shāng
 COP third month Zhou duke first go to new city Luo CONJ announce Shang
 王士。
 wáng shì.
 royal officers
 'In the 3rd month, the Duke of Zhou first *went to* the new city Luo, and made
 an announcement to the royal officers of Shang.'
 (*Documents* "Duo shi 多士", Karlgren (1950:55); Qu (1975:131))

In the above example, 用 'thereby, hence' is used as a conjunction linking two sentences, and 于 can only be interpreted as the verb of the first sentence.

In sum, 于 is used as a verb in pre-Archaic and early Archaic Chinese, meaning 'to go to', and its feature set can be described as [+verb, +motion, +goal].

3.1.2 越 yuè

越 as a verb means 'to jump over (to)', 'to go beyond', or 'to transgress'. Although 越 as a verb is most frequently interpreted as 'to jump over', there are examples of it followed by [+goal]. Examples include 恐隕越于下，以遭天子羞 'I should fear that majesty was falling low, and left a stigma on the son of Heaven' (Zuo's "Xi Gong 僖公" 9.2, Yang (1981:327)) and 射其左，越於車下 'He shot the man on the left, who fell down below the carriage' (Zuo's "Cheng Gong 成公" 2.3, Yang (1981:793)). Therefore, there is no doubt that 越 is also a verb of location movement.

Baxter & Sagart (1998:60) mentioned the possibility that 遠 'distant' (*hɟwonX* < **wjanʔ*) and 越 (*hɟwot* < **wjat*) are etymologically related, attributing alternation between different syllable codas to the effect of suffixes which are now lost. However, 越 may well be interpretable as a causative counterpart of 遠. That is, from the meaning 'to cause to be distant', the meaning 'to jump over to', 'to go beyond' was derived. Schuessler (2007:596) explained that 越 (*hɟwot* < **wjat*) may be derived from 于 'to go' (*hju* < **w-j-a*) with a t-suffix of unknown function, which still awaits further proof.

When 越 is used as 'to jump over to', which is a verb indicating movement, it is directly followed by a [+goal]. This can be either a spatial goal or a temporal goal. The use of 越 followed by a temporal goal developed through metaphorical extension from its original use followed by a spatial goal. Examples of [越+goal] in *Documents* are as follows.²¹

21. 越 yuè appears frequently in *Documents*. It appears 63 times in the New Text version. Among these occurrences, there are as many as 18 examples of 越 in its original verbal usage. 越 as a function word has a wide range of usages. It indicates a scope in the form [自... 越...]

- (13) 肆 予 曷 敢 不 越 印 敕 寧 王 大
 Sì yǔ hé gǎn bú yuè áng mǐ níng wáng dà
 then 1SG how dare not jump over to 1SG.ACC achieve serene king's great
 命。

mìng.

mandate

'Then how could I dare not, when it has passed on to me, achieve the serene (dead) kings' mandate?'

(Documents "Da gao 大誥", Karlgren (1950: 39); Qu (1975: 94))

Jin (2010: 180) interpreted 越 as 及 'to reach', and 印 as 我自身 'I myself'. This supports the idea that 越 is a verb of movement which is followed by [+goal]. 印 can be interpreted as a spatial goal.

In the following two examples, 越 is followed by a temporal goal.

- (14) 茲 既 受 命 還， 出 綴 衣 于 庭。
 Zī jì shòu mìng huán, chū zhuì yī yú tíng.
 Now already receive order return bring out stitched garments to the court
 越 翼 日 乙 丑， 王 崩。

Yuè yì rì yǐchǒu, wáng bēng.

jumping over to next day yichou the king deceased

'Now, when they had received the (king's) order, they returned. One brought the stitched garments into the courtyard. The next day, yǐchǒu day, the king died.'

(Documents "Gu ming 顧命", Karlgren (1950: 70); Qu (1975: 234))

越 is followed by a time expression 翼日 'the next day'. 越 is interpreted as a verb of movement meaning 'jumping over to' (or 'reaching to') and 翼日 is its goal. 越 翼日 is equivalent to 到了第二天 'reach the following day' > 'on the following day' in modern Mandarin. 越, like 到 'arrive at, reach', is a verb of movement followed by a goal. In the above example, the goal, 翼日, is not spatial, but temporal, via metaphorical extension.

(two occurrences), or is used as an additive marker (meaning 'also', 'in addition to'; six times). It is also used as an NP-AND (20 occurrences) or as a sentence connective (15 occurrences). For details on the usages of 越 in Documents, see Chang (2021). For an example of 越 indicating a scope, see Example (21). For an example of 越 used as an additive marker, see Example (33). For examples of 越 used as an NP-AND, see Examples (6) and (37)–(39).

- (15) 桀 德 惟 乃 弗 作 往 任 , 是 惟 暴 德
 Jié dé wéi nǎi fú zuò wǎng rèn, shì wéi bào dé
 Jie's virtue COP CONJ not act as former employment DEM COP violent virtue
 罔 後。 亦 越 成 湯 陟 , 丕
 wǎng hòu. Yì yuè Chéng Tāng zhì, pī
 have no descendant and jump to Cheng Tang ascend to the throne greatly
 釐 上 帝 之 耿 命。
 lí shàngdì zhī gěng mìng.
 practice the heaven ATR brilliant mandate
 'The virtue of Jie did not follow the former way of employment, so he was violent and had no descendant. When Cheng Tang ascended to the throne, he was able to greatly practice the brilliant mandate of the Heaven.'
 (*Documents* "Li zheng 立政", Karlgren (1950:70); Qu (1975:157))

In this example, 越 is followed by 成湯陟, and it can be interpreted as 'jumping to the time (meaning 'when') that Cheng Tang ascended to the throne.' Here 越 is a verb meaning 'to jump over to' and 成湯陟 is its goal, which is temporal.²²

In sum, 越 was used as a verb of movement in Archaic Chinese, meaning 'jump over to'. As its object, a time point frequently appears. When the verb 越 is followed by a time point, its feature set can be described as [+verb, +motion, +goal], just as when it is followed by a spatial goal. The feature [+motion] can be understood in a temporal sense, as well as in a spatial sense.

3.1.3 暨 jì

暨 as a verb means 'to reach to', 'to arrive'. *Guangyun* 廣韻 defined 暨 as 及 'to reach', 至 'to arrive at', and 與 'to be together with'.²³ Baxter (1992: 351) stated that 暨 and 及 are synonymous. The difference between them is that the former has

22. Early commentaries often treat 越 as a loanword for 於, which is worth questioning. 於 appears extremely rarely in *Documents*—only nine times. Only six of them are used as a function word. (Among the remaining three, two are used as an exclamatory particle and one is used as a loanword for 饒 'to give plenty of food'.) On the other hand, 越 appears 63 times in the same text. Therefore, it is anachronistic to interpret 越 as a loanword for 於, which seldom occurred at that time. 越 can best be interpreted as its original meaning.

Also, there are more examples of a verb of location movement appearing in the form [Vmotion +time expression]. 至 is the case. Examples of [至+time expression] include 至之日 'reaching to that day' and 至湯 'reaching to the time of King Tang'. Therefore, it is legitimate to argue that 越 in [越+time expression] is used as its original verbal meaning, rather than as a loanword for 於.

23. *Jiaozheng Songben Guangyun* (Chen 1998:353): "暨: 及也, 至也, 與也。"

the *-s suffix while the latter does not. Their Old and Middle Chinese reconstructions are as follows.²⁴

暨 *jì* < *gijH* < **grjits* < **grjips* 及 *jí* < *gip* < **g(r)jip*

An example of 暨 used as a verb meaning ‘to reach’ is shown in (16).

- (16) 厥 逆 (朔) 疆 暨 厲 田, 厥 東 疆 暨 散
Jué shuò jiāng jì Lì tián, jué dōng jiāng jì Sǎn
 DEM northern end reach to Li farmland DEM eastern end reach to San
 田, 厥 南 疆 暨 散 田, 暨 政 父
tián, jué nán jiāng jì Sǎn tián, jì Zhèngfù
 farmland DEM southern end reach to San farmland reach to Zhengfu
 田, 厥 西 疆 暨 厲 田.....
tián, jué Xī jiāng jì Lì tián.....
 farmland DEM western end reach to Li farmland.....

‘Its northern end reaches to the farmland of Li; Its eastern end reaches to the farmland of San; Its southern end reaches to the farmland of San and the farmland of Zhengfu; Its western end reaches to the farmland of Li.....’

(“Wusiwei ding 五祀衛鼎”, adopted from Yu (2013:67))

24. The similarity in their reconstructed forms implies that there was an etymological relationship between 及 and 暨. Schuessler (2007:294) stated that 暨 could be tone C (= *qùshēng* 去聲, ‘falling tone’) derivation. He also argued that 暨 is the exoactive form of 及, where exoactive verbs are those “whose action is directed outward from the subject”, while endoactive verbs are those in which “the action was conceived as operating in or on the subject” (Schuessler 2007:39).

However, Baxter mentioned that although one of the functions of the suffix *-s is to make a transitive verb from an intransitive one, this derivational relationship does not seem to apply to the case of 及 and 暨. There is not much difference in terms of their meaning; the main difference is that the former occurs far more frequently than the latter (personal communication, May, 2018).

The frequency of 暨 in Old Chinese texts is truly very low. There are only 34 occurrences of 暨 in the entire corpus of Academia Sinica Old Chinese texts (中央研究所漢籍電子文獻資料庫, <http://hanji.sinica.edu.tw/>). 暨 appears 23 times in *Documents* (including both Old Text and New Text), three times in *The records of rites* (*Lǐjì* 禮記), five times in *Zuo's commentary* (*Zuǒzhuàn* 左傳), once in *Zhuāngzǐ* 莊子, and twice in *The historical records* (*Shǐjì* 史記).

I analyzed all 34 occurrences of 暨 in the database and also compared the usages of 及 and 暨 in *Documents*, yet did not find any meaningful difference between them. Both are used as a verb meaning ‘to reach’, as a comitative preposition, as an additive particle, and as an NP-AND. In conclusion, there might have been some differences between 及 and 暨 in the pre-Archaic Chinese period. However, their differences, if any, became obsolete by the time of Old Chinese, and they were used almost synonymously in Old Chinese.

The context of this line is that after Li 厲, the lord of estates, sold his land to Wei 衛, they are clarifying the four borders of the land. 暨 can best be interpreted as a verb ‘to reach to’.

Another example of 暨 used as a verb is as follows.

- (17) 列子提屨，跣而走，暨乎門曰……
 Lièzǐ tí lǚ, xiǎn ér zǒu, jì hū mén yuē……
 Liezi pick up shoes barefoot CONJ run reach to gate say
 ‘Liezi picked up his shoes and ran barefoot. He reached to the gate and said……’
 (Zhuangzi “Lieyukou 列禦寇”, Chen (1983: 829))

In sum, 暨 was originally a verb meaning ‘to reach’, and its feature set can also be described as [+verb, +motion, +goal].

3.1.4 及 jí

In the OBI, 及 is a pictograph of a person and a hand approaching to hold, or holding, the person.



Figure 1. 及 in the OBI (period I)

Shuowen jiezi 說文解字 (Xu 1963: 64) interpreted 及 as 逮 dài ‘to capture’, ‘to reach’, and explained that it has 又 ‘hand’ and 人 ‘person’ as its semantic components.²⁵

及 is widely used as a verb in the OBI, the Bronze Inscriptions (BI), and Archaic Chinese transmitted texts. Chang (2019) analyzed all occurrences of 及 in *Fascicle three of inscriptions from the Yin ruins* (*Yinxu wenzi bingbian* 殷墟文字丙編, *Bingbian* for short), which belongs to period I, *The book of documents*, and *The book of odes*. 及 appears 16 times in *Bingbian*.²⁶ Among these, there are 13 occurrences of 及 used as a verb. Four of them are interpreted as ‘to capture’, and nine are interpreted as ‘to reach’. Among the total of 28 occurrences in the New Text of *Documents*, there are 10 occurrences of 及 used as a verb, all of which are understood as ‘to reach’. In *Odes*, 及 is used as a verb in 20 cases out of the total

25. 「及，逮也。從又從人。」

26. The frequency count of 及 in *Bingbian* follows that of Takashima (1985).

of 48 occurrences; nineteen of them are interpreted as ‘to reach’ and only one is interpreted as ‘to chase/pursue’, as in 周王于邁，六師及之 (*Odes* 238.3 “Yu pu 械櫟”) ‘The King of Zhou marches, and the six armies pursue him.’²⁷ It can be assumed that by the time of *Documents* and *Odes*, the meaning ‘to capture’ had almost died out and only the meaning ‘to reach, to arrive at’ survived.

Examples of 及 used as a verb in the *Bingbian*, *Documents*, and *Odes* are given below.²⁸

- (18) 貞 犬 追 亘 出 及。
Zhēn Quǎn zhuī Xuān yǒu jí.
Tested Quan pursue Xuan have capture
‘Tested: (If) Quan pursues Xuan, (he) will surely (succeed in) getting to (them).’ (Bingbian 261.13o, adopted from Chang (2019: 32))
- (19) 戊子 卜 內 貞 大 豕 及。
Wùzǐ bǔ Nèi zhēn dà shǐ jí.
Wuzi crack making Nei tested Big Pig reach
‘Crack making on the wuzi day [25], Nei tested, Big Pig will reach (or: be [reached:] gotten).’ (Bingbian 440.1o, adopted from Chang (2019: 32))

及 in (18) is interpreted as ‘to capture’, while it is interpreted as ‘to reach’ or ‘to be reached’ in (19).

及 is rendered into ‘to reach’ in the following example from *Documents*.

- (20) 罰 及 爾 身 弗 可 悔。
Fá jí ěr shēn fú kě huǐ.
punishment reach your body NEG possibly regret
‘When the punishment reaches your bodies, (you cannot repent=) repenting is of no avail.’
(*Documents* “Pangeng shang 盤庚上”, Karlgren (1950: 23); Qu (1975: 57))

及 meaning ‘to reach to’ is also a verb indicating a location movement. Therefore, its feature set can be described as [+verb, +motion, +goal].

27. Also, it must be stressed that 及 in 周王于邁，六師及之 derived from its original meaning, ‘to capture’. It should not be casually interpreted as 與 ‘to be together with’ as Xuan Zheng 鄭玄 did.

28. The interpretation of graphs and English translation of *Bingbian* follow those of Takashima (2010).

3.2 Used in the form indicating the end point of a scope

Verbs of location movement are often used to indicate the end point of a scope, which corresponds to “to” in “from A to Z.” 越, 暨, and 及 are all used in this form: [自...越...], [自...暨...], and [自...及...], respectively. 自 can be omitted. 由 can appear in place of 自. In this pattern, 越, 暨, and 及 all indicate the end point of a scope and they are interpreted as coverbs, whose feature set can be described as [±verb]. They have lost the spatial sense of motion, yet they still have the feature [+goal] in the abstract sense. Therefore, their feature set can be described as [±verb, -motion, +goal, -concrete]. Below are examples of 越, 暨, and 及 indicating the end point of a scope, appearing in the form [自...越...], [自...暨...], and [自...及...].

- (21) 自 古 商 人 亦 越 我 周 文王 立
 Zì gǔ Shāng rén yì yuè wǒ Zhōu Wénwáng lì
 From old Shang people also to our Zhou King Wen establish
 政 立 事。
 zhèng lì shì.
 head of government establish manager
 ‘From of old Shang people, also to our King Wen of Zhou, they established a head of a government and a manager.’
 (Documents “Li Zheng 立政”, Karlgren (1950:68); Qu (1975:160))
- (22) 庚寅 貞， 甲..... 自 上甲 其 暨 大甲 酒？
 Gēngyín zhēn, jiǎ..... zì Shàngjiǎ qí jì Dàjiǎ jiǔ?
 Gengyin tested *jia* from Shangjia PRT to Dajia make a wine sacrifice
 ‘On gengyin day, tested: “Jia..... From Shangjia to Dajia should we make a wine sacrifice?”’
 (Heji 32388, adopted from Yu (2013:67))
- (23) 自 殷王 中宗 及 高宗 及 祖甲 及 我 周 文王 茲
 Zì Yīnwáng Zhōngzōng jí Gāozōng jí Zǔjiǎ jí wǒ Zhōu Wénwáng zī
 From Yin king Zhongzong to Gaozong to Zujia to our Zhou King Wen these
 四 人 迪 哲。
 sì rén dí zhé.
 four persons execute wisdom
 ‘From the Yin king Zhongzong to Gaozong to Zujia and to our King Wen of Zhou, these four men executed wisdom.’
 (Documents “Wu yi 無逸”, Karlgren (1950:59); Qu (1975:140))

于 indicating the end point of a scope is frequently used in the form [自... 至于...], although there are a handful of occurrences of [自... 于...] in the OBI.²⁹ This implies that by the time of early Archaic Chinese, 于 had been completely grammaticalized from a verb of motion into an allative marker (a function word indicating the goal of motion). 于 used as an allative marker appears after a verb of motion, and its feature set can be described as [-verb, +motion, +goal, +concrete]. Example (24) below is an example of 于 used as an allative marker.

- (24) 丙戌 卜 韋 貞 令 役 往 于 虞。³⁰
 Bǐngshù bǔ Wéi zhē lìng Pài wǎng yú Jù.
 Bingshu crack making Wei tested order Pai go to Ju
 ‘Crack making on the *bingshu* day [23], Wei tested: (We) should order Pai to go to Ju.’
 (Bingbian 110.30=Heji 6033.30)

于 used in the form [自... 至于...] indicating a scope, a usage derived from its function as allative, can be described as [-verb, -motion, +goal, -concrete]. 于 has the feature [-motion], because it lost the sense of spatial movement. Yet, it still has the feature [+goal] in the abstract sense. As the objects of 自 and 至于, time words and words indicating person appear frequently. Examples of [自... 至于...] are as follows.

- (25) 自 今 至 于 後 日 各 恭 爾 事 齊 乃 位
 Zì jīn zhì yú hòu rì gè gōng ěr shì qí nǎi wèi
 From now reach to later day each be respectful your work adjust your position
 度 乃 口。
 dù nǎi kǒu.
 regulate your mouth
 ‘From now until future days, each of you execute your work, adjust your positions, and regulate your mouths.’
 (Documents “Pangeng shang 盤庚上”, Karlgren (1950: 23); Qu (1975: 57))

29. An example of [自... 于...] in the OBI is 乙酉卜，行貞：王步，自邁于大，無災。在十二月。(Heji 24238) ‘Crack making on the *yiyou* day, Xing tested: The king makes a military expedition. From Gou to Da, there should be no disaster. On the twelfth month.’ (Adopted from Fang 2015: 277). Both 邁 and 大 are place names. 自邁于大 is interpreted as a scope.

30. Takashima (2010: 302, vol. 2) interpreted 役 as a variant of 派 or 永.

- (26) 自 成湯 至 于帝乙 罔 不 明 德
 Zì Chéng Tāng zhì yú Dì Yǐ wǎng bù míng dé
 From Cheng Tang reach to Dì Yi there were none NEG brighten virtue
 恤 祀。
 xù sì
 attend to sacrifice
 'From Cheng Tang to Dì Yi, there were none who did not make bright their
 virtue and carefully attend to the sacrifices.'
 (Documents "Duo shi 多士", Karlgren (1950:55); Qu (1975:191))

In (25), time words (今, 後日) appear as objects of 自 and 于, while words indicating person (成湯, 帝乙) appear in (26).

3.3 Further grammaticalized into an additive particle

An additive particle (also called "inclusive particle") marks that the co-occurring element (a noun phrase, a verb phrase, or even a sentence) is a piece of information that is supplemented.

According to König (1991), additive particles are subdivided into simple additive particles and scalar additive particles. Simple additive particles "generally do not induce an ordering, or operate over an unordered set of contextually relevant value" (König 1991:62). English expressions *also*, *too*, *as well*, *either*, *in addition*, *likewise*, and *similarly* belong to this category, as shown in the following examples (bolded elements are what is added).

- (27) a. Also on the agenda is a paper on **pollution**.
 b. We bought **some wine**, as well/too.
 c. **John** similarly has seen it.
 d. John also met **Mary**. (adopted from König (1991:69))

On the other hand, scalar additive particles "always induce an order for the set of values under consideration" (König 1991:68). English *even* is an example.

- (28) **Even** the President came. (adopted from König (1991:69))

What, then, are the origins of additive particles? König (1991:165–166) argued that simple additive particles and scalar additive particles were derived from distinct origins. Simple additive particles frequently developed from (1) expressions indicating identity or equality (of manner or degree), or (2) words meaning 'increase, addition'. On the contrary, scalar additive particles often derived from (1) expressions indicating inclusion, (2) emphatic reflexives, or (3) metalinguistic terms such as 'true, clearly'.

I argue that the grammaticalization path that 于/越/暨/及 underwent in the Archaic Chinese period is best analyzed as the development of an expression indicating inclusion into a scalar additive marker, and the further development of a scalar additive marker into an NP-AND. Each grammaticalization path is well-attested cross-linguistically.

Examples of the grammaticalization of an expression indicating inclusion into a scalar additive marker include French *jusqu'à* ('as far as, (up) to, until, even'), Arabic *hatta* ('until, as far as, up to, even'), Romanian *pina si* ('until, even'), and Czech *dokonce* ('(up) to the end'), among others.

Consider French *jusqu'à*. In (29a), *jusqu'à* is interpreted as '(up) to, until' indicating inclusion, while it is interpreted as a scalar additive particle in (29b).³¹

- (29) a. *du matin jusque'au soir*
 From+the morning to+the evening
 'from the morning to the evening'
- b. *Il y a des noms et jusqu'à des personnes que j'ai*
 There are IND.ART names and even IND.ART persons that I:PAST
complètement obliés.
 completely forgot
 'There are names and even persons that I have completely forgotten.'

Although König used the term 'inclusion', these expressions can better be described as markers indicating the end point of a scope. For instance, in (29a), *jusqu'à* indicates the ending point of a scope (in a temporal sense) used in the form [*de...jusqu'à...*] 'from...to...':

There are other cases in the world's languages of markers indicating the end point of a scope further grammaticalized into scalar additive particles. For instance, *-kkaji* '(up) to, until' in Korean and *-made* '(up) to, until' in Japanese, originally spatial goal markers, can also indicate the end point of a scope when used in the forms [*(...eseo)...kkaji*] '(from...) to...' and [*(...kara)...made*] '(from...) to...', respectively. Later, *-kkaji* and *-made* further grammaticalized into scalar additive particles in the forms [*...kkaji*] and [*...made*], as shown in (30) and (31).

- (30) a. *Seoul eseo Busan kkaji eolmana geolljiyo?*
 Seoul from Busan to how long take?
 'How long does it take from Seoul to Busan?'
- b. *Bam do neutetot go bi kkaji naerinda*
 Night also late CONJ rain even coming down
 'It is late and even the rain is coming down (=it is even raining).'
- (adopted from Chang (2019: 45–46))

31. Example (29a) is my own. Example (29b) is adopted from König (1991: 166).

In (30a), *-kkaji* is used as a marker indicating the ending point of a scope, while it is used as a scalar additive particle in (30b).

- (31) a. *Chikyū kara tsuki made no kyuri*
 Earth from moon to POSS distance
 ‘The distance from the earth to the moon’
 b. *Oya ni made mihana sareru*
 Parents by even abandon PASS
 ‘Abandoned even by parents’

In (31a), *-made* marks the ending point of a scope, while it is used as a scalar additive particle in (31b).

于, 越, 暨, and 及 in Archaic Chinese not only mark the end point of a scope appearing in the form [自...至于...], [自...越...], [自...暨...], and [自...及...], as illustrated in §3.2, but also are used as scalar additive particles in the form [(NP1)+([.....]) + 于/越/暨/及 + NP2 + ([.....])]. NP1 may or may not appear. However, when it does not appear, it is still implied through the context. When NP1 appears, it may or may not appear adjacent to NP2. Switching the position of NP1 and NP2 *does* affect the entire meaning, which is the most striking difference between a scalar additive particle and an NP-AND.

The following examples illustrate 于, 越, 暨, and 及 used as additive particles.

- (32) 壬申 卜 禱 四 土 于 羞 土。
Rénshēn bǔ dǎo sì tǔ yú xiū tǔ.
 renshen day tested pray four (corner) gods even to local gods
 ‘On *renshen* day, tested: we should pray to the gods of the four corners, even to the local gods.’ (“Shiduo 拾掇” 2.405, adopted from Takashima (1989: 345))

Takashima (1989: 345) noticed that 四土 ‘gods of the four corners’ is more prominent than 羞土 ‘local gods’ and interpreted 于 in the above example as 包括 ‘include’, 直至 ‘up to’, or 甚至 ‘even’. As is implied in his explanation, 于 can best be understood as scalar additive, not as an NP-AND.

越 is used as an additive particle, especially in *Documents*, as in the following example.

- (33) 先正 克 左右 昭 事 厥 辟， 越
 Xiānzhèng kè zuǒyòu zhāo shì jué pì, yuè
 former principal officers able to assist brightly serve their sovereigns even
 小 大 謀猷， 罔 不 率 從。
 xiǎo dà móuyóu, wǎng bù lǜ cóng.
 small big plans there is none NEG go along follow
 ‘The former principal officers could assist and brightly serve their sovereigns.
 Even in regard to small and great plans, there were none in which they did not
 follow them.’
 (Documents “Wenhou zhi ming 文侯之命”, Karlgren (1950: 78); Qu
 (1975: 263))

In 越小大謀猷罔不率從，罔不 ‘there is none which was not...’ suggests that 越 is a word indicating inclusion. 越 can be best understood as a scalar additive marker ‘even’. 越小大謀猷罔不率從 is interpreted as ‘even in regard to big and small plans, there was none which was not followed.’

暨 in the following example is used as an additive particle.

- (34) 古 有 夏 先 后，方 懋 厥 德，罔 有
 Gǔ yǒu Xià xiān hòu, fāng mào jué dé, wǎng yǒu
 Ancient there is Xia former ruler just then diligent DEM virtue NEG exist
 天 災。山 川 鬼 神，亦 莫 不 寧。暨
 tiān zāi. Shān chuān guǐ shén, yì mò bù níng. jì
 heaven calamity mountain stream ghost god also none NEG peaceful even
 鳥 獸 魚 鼈 咸 若。
 niǎo shòu yú biē xián ruò.
 birds beasts fishes tortoise all like
 ‘Of old the former kings of Xia cultivated earnestly their virtue and there were
 no calamities from Heaven. The spirits of the mountains and streams likewise
 were all in tranquility. Even the birds and beasts, the fishes and tortoises
 (=small and insignificant creatures) were all like this.’
 (Documents “Yi xun 伊訓”, Qu (1975: 313))³²

In the above example, NP1 (山川鬼神) and NP2 (鳥獸魚鼈) do not appear adjacent to each other. Also, there exists an obvious difference in terms of their significance. NP1 is by far more significant than NP2. 鳥獸魚鼈 can be understood as ‘small and insignificant creatures’, which are added. Therefore, 暨 in 暨鳥獸魚鼈 can best be interpreted as ‘even’, which is a scalar additive particle.

An example of 及 used as a scalar additive particle is as follows.

32. The English translation is adopted from: <https://ctext.org/shang-shu/instructions-of-yi?searchu=%E5%8F%A4%E6%9C%89%E5%A4%8F%E5%85%88%E5%90%8E&searchmode=showall#result> (Accessed 2022-09-28.)

(35) 周 冶殺 元咺 及 子適子儀。

Zhōu Yě shā Yuánxuān jí Zìshì Zìyí.

Zhou Ye killed Yuanxuan even Zishi Ziyi

'Zhou Chuan and Ye Qin killed Yuanhuan, even (killed) Zishi and Ziyi'

(Zuo's "Xi Gong 僖公" 30.2, Yang (1981:478))

The background for the above line is relevant. Yuanxuan went against the marquis of Wei 衛侯 and raised Prince Xia 公子瑕 to marquis. Thereupon, the marquis of Wei incited Zhou Chuan 周欽 and Ye Qin 冶廛 to kill Yuanxuan as well as Zishi (Prince Xia) and Ziyi (the younger brother of Prince Xia's mother). Hence, there exists a difference in terms of the semantic weight between 元咺 and 子適子儀. The former, who is the initiator of the rebellion, is main; the latter two are added. 及 can best be interpreted as a scalar additive marker.

It must be emphasized that the purpose of using a scalar additive particle is to stress and highlight the added information. In this respect, König (1991) stated that an additive particle is a sort of focus marker. Scalar additive particles in Archaic Chinese have very often been misinterpreted as NP-AND. Zhou (1989: 139) argued that one of the features of 及 used as an NP-AND, in comparison to 與, is that the NP (or NPs) preceding 及 is more salient ("主" 'main') than the NP (or NPs) following it ("從" 'following, supplementary'). However, when there exists a significant gap in terms of the semantic weight between preceding and following NPs, 及 must be understood as an additive marker, not as an NP-AND. Also, given that using an additive particle emphasizes the following NP or NPs, the stress must be placed on the following NP(s), not on the preceding one(s).

The feature set of 于, 越, 暨, and 及 used as additive particles can be described as [-verb, -motion, +goal]. They have the feature [+goal], which is not a spatial goal, but one on a conceptual level. 于, 越, 暨, and 及 used as additive particles are the predecessors of NP-AND. That is, when the orderings [NP1+于/越/暨/及+NP2] and [NP2+于/越/暨/及+NP1] are identical in meaning (i.e. NP1 and NP2 have same semantic weight), the grammaticalization from additive into NP-AND is completed.

3.4 The grammaticalization into NP-AND is completed

Finally, from an additive particle, 于, 越, 暨, and 及 further developed into NP-AND. When used as NP-AND, they appear in the form [NP1+于/越/暨/及+NP2], and NP1 and NP2 have equal semantic prominence. That is, switching the position of NP1 and NP2 does not affect the meaning. For examples of this NP-AND usage, see (5) through (8) in §2, as well as additional examples below.

Zhou (1961:113, vol.1), Chen (1988:120–121), Liu et al. (1989:362), and Chen (2004:509) suggested that 于 was used as an NP-AND as early as in the OBI, as well as in the BI. For example:

- (36) 余其從多田于多伯征孟方。

Yú qí cóng Duōtián yú Duōbó zhēng Yúfāng.

I PRT follow Duotian NP-AND Duobo conquer Yufang

‘I will following Duotian and Duobo conquer Yufang.’

(Heji 36513, 36511, adopted from Liu et al. (1989:361))

Switching the position of 多田 and 多伯 does not affect the meaning. Therefore, 于 is interpreted as an NP-AND.³³

越 is frequently used as an NP-AND, especially in *Documents*. Among the total of 63 occurrences of 越 in the New Text version of *Documents*, there are as many as 20 occurrences of it used as an NP-AND. Examples are as follows.

- (37) 王其效邦君越御事 [...]

Wáng qí xiào bāngjūn yuè yùshì [...]

The king MOD stimulate lords of estates NP-AND managers of affairs

‘When the king (stimulates=) to the princes of estates and the managers of

affairs [...]’ (*Documents* “Zicai 梓材”, Karlgren (1950:46); Qu (1975:113))

邦君越御事 ‘princes of estates and managers of affairs’ is the compound object of the verb 效 ‘stimulate’. 越 can best be interpreted as an NP-AND.

33. Fang (2015:287–288) also provided the passages in Examples (5) and (36) as examples of 于 used as an NP-AND. However, he stated that 于 used as an NP-AND is actually a loan graph for 與, and therefore has nothing to do with the grammaticalization of 于. 于 is phonetically similar enough to 與 to be used as its loan graph, as 于 is reconstructed with a voiced laryngeal stop initial (*xiámǔ* 匣母) and 與 with a voiced laryngeal fricative (*yùmǔ* 喻母). Both belong to the *yú* rhyme group (*yúbù* 魚部) in Old Chinese. 與 does not appear in the OBI and BI of Western Zhou times. Therefore, in Fang’s view, 于 is used as a loan character for 與 during that time.

However, his argument is illegitimate because, if 與 did not appear in the OBI and BI of Western Zhou times, 于 could not be used as a loan graph for a 與 that did not even exist at that time; his interpretation is anachronistic. This paper argues that 于 itself was used as an NP-AND and this usage was derived from its original verbal usage through grammaticalization.

- (38) 皇 天 既 付 中 國 民 越 厥 疆 土
Huáng tiān jì fù zhōng guó mín yuè jué jiāng tǔ
 August heaven wholly grant central territory people NP-AND its frontier land
 于 先 王。
yú xiān wáng.
 to former kings
 ‘Great Heaven has granted the people of the Central kingdom and its territory
 to the former kings.’

(*Documents* “Zicai 梓材”, Karlgren (1950:48); Qu (1975:115))

中國民 and 厥疆土 have equal semantic weight, and 厥疆土 cannot be interpreted as additional to 中國民. Also, it is noteworthy that 中國民越厥疆土 can be interpreted as one semantic unit, in that both the people and the territory are indispensable in establishing a country. Therefore, 越 in 中國民越厥疆土 can best be interpreted as an NP-AND. It is not just an additive particle.

- (39) 念 天 威 越 我 民。
Niàn tiān wēi yuè wǒ mín.
 think heaven’s majesty NP-AND our people
 ‘Think of Heaven’s majesty and of our people.’
 (*Documents* “Junshi 君奭”, Karlgren (1950:59); Qu (1975:142))

天威 ‘Heaven’s majesty’ and 我民 ‘our people’ are the two important things that the ruler must keep in mind. In that sense, they constitute a single unit. The latter cannot be understood as additional to the former. Therefore, 越 in 天威越我民 can best be interpreted as an NP-AND.

There are many examples of 暨 used as an NP-AND in *Documents*, as shown below.

- (40) 以 厥 庶 民 暨 厥 臣 達 大 家。
Yǐ jué shù mín jì jué chén dá dàjiā.
 take his numerous people NP-AND his vassals reach grandee
 ‘With his multitude and his vassals, reach to good relations with the grantees.’
 (*Documents* “Zicai 梓材”, Karlgren (1950:46); Qu (1975:112))

厥庶民暨厥臣 ‘his multitude and his vassals’, which is the object of 以, is a single semantic unit that contrasts with 大家 ‘the grantees’. Therefore, 暨 can be best interpreted as an NP-AND.

- (41) 告 爾 有 方 多 士 暨 殷 多 士。
Gào ěr yǒu fāng duō shì jì Yīn duō shì.
 inform you POSS state many officers NP-AND Yin many officers
 ‘(I) will inform you, many officers of the extant states, and Yin’s many officers.’
 (*Documents* “Duo fang 多方”, Karlgren (1950:65); Qu (1975:153))

Likewise, 暨 in the above example can best be interpreted as an NP-AND.

及 is frequently used as an NP-AND in Archaic Chinese. An example is as follows.³⁴

- (42) 鄭 武公 娶 于 申， 曰 武姜， 生 莊公
Zhèng Wǔgōng qǔ yú Shēn, yuē Wǔjiāng, shēng Zhuānggōng
Zheng Duke Wu took a wife from Shen called Wujiang bore Duke Zhuang
及 共叔段。
jí Gòngshū Duàn.
and Gongshu Duan
‘Duke Wu of Zheng had married a daughter of the House of Shen, called
Wujiang, who bore duke Zhuang and Gongshu Duan.’
(Zuo’s “Yin Gong 隱公” 1.4, Yang (1981: 10))

[莊公及共叔段]_{NP} is the object of 生. 及 can best be interpreted as an NP-AND.

34. It must be mentioned that 及 used as an NP-AND in Archaic Chinese came into existence via two grammaticalization paths:

- Path1: ‘to chase, catch’ (犬追亘出及) > comitative (及爾同死) > NP-AND
[mainly in OBI, *Odes*, *Documents*]
Path2: ‘to reach’ (未及國) > indicating the endpoint of a scope (自古及今)
> additive (獲潘子臣，小惟子及大夫七人) > NP-AND
[mainly in Zuo’s and Warring States period texts and on]

Path 1 occurred earlier than Path 2. Path 1 occurred in the pre and early Archaic Chinese periods. 及 meaning ‘to chase, catch’ mainly appears in the OBI and had almost died out by the time of *Odes* and *Documents*. 及 was frequently used as a comitative marker, which derived from its verbal meaning ‘to chase, catch’, in *Documents*, *Odes*, and in Zuo’s at a lesser frequency. (The development of a verb meaning ‘to chase, pursue, follow’ into a comitative marker is well-attested (see Heine & Kuteva 2002: 139–140). 跟 in modern Chinese is an example.) From a comitative marker, 及 further developed into an NP-AND.

In Zuo’s, 及 appears 726 times. In more than half of the occurrences, it is used as a verb meaning ‘to reach’, in both concrete and abstract senses (e.g. 及國 and 及邪, respectively). It is seldom used as ‘to chase, catch’. Compared to earlier periods, the use of 及 as a comitative marker and NP-AND decreased, especially in The Latter Four Dukes 後四公. Instead, 及 frequently appears in the form [A及BCD]_{NP}, [ABC及D]_{NP}, [A及B及C]_{NP}, [AB及CD]_{NP}, and so on, especially in The Latter Four Dukes. There is no doubt that 及 in these forms derived from its meaning ‘to reach’. [A及BCD] literally means ‘(from) A reaching as far as B, C, D’. 及 grammaticalized into an NP-AND via a possible intermediate stage of a marker indicating the end point of a scope, and an additive marker.

In Xunzi 荀子, 及 appears 61 times. Its usage as a comitative marker had died out. There is no single occurrence of 及 in such a usage. There are four occurrences of 自古及今 where 及 indicates the ending point of a scope. There are three occurrences of 及 as an NP-AND. This shows that Path 1 completely died out by the Warring States period, and 及 as an NP-AND started to be derived only via Path 2.

How, then, did 于, 越, 暨, and 及 develop into NP-AND? Their NP-AND usages developed from their usages as additive markers. As explained in § 1, an additive marker ('also', 'too', 'even') is one of the major sources of an NP-AND in many languages. Haspelmath (2004: 21) drew a semantic map for conjunction and related notions as shown in Figure 1. It illustrates that the additive marker, which is represented by 'also', together with the comitative, is a common source for an NP-AND (N-conjunction in his term).

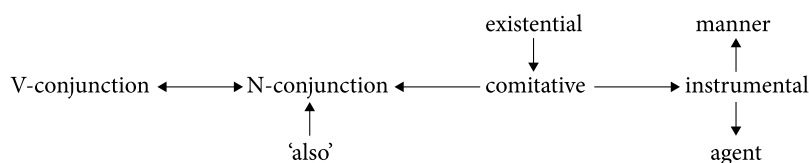


Figure 2. Diachronic links between conjunction and related functions³⁵

The grammaticalization of an additive marker into an NP-AND is frequently observed cross-linguistically. Examples include Latin *et* (<*iam*), Greek *καί*, Russian *i*, Norwegian *og* (<*så*), Lezgian *-ni*,³⁶ Manam *-be*,³⁷ Zulu *na-*,³⁸ Sesotho *le*,³⁹ and Malayalam *-um* (König 1991: 65).⁴⁰

Dargi is one of the written languages of Dagestan.⁴¹ In Dargi, *-ra* is used as an NP-AND (appearing in the form ...-*ra*...-*ra*); a simple additive particle 'also, too';

35. Adopted from Haspelmath (2004: 24).

36. Lezgian belongs to the Northeast Caucasian language family. It is spoken in Russia, Azerbaijan, and Georgia by approximately 655,000 speakers (according to 2016 census). For details, see https://en.wikipedia.org/wiki/Lezgian_language.

37. Manam belongs to the Austronesian language family spoken in northern New Guinea by approximately 8,000 people (according to 2003 census). For details, see https://en.wikipedia.org/wiki/Manam_language.

38. Zulu belongs to the Niger-Congo language family. It is spoken in South Africa, Lesotho, and Swaziland by 12 million native speakers (2011 census) and 16 million L2 speaker (2002 census). For details, see https://en.wikipedia.org/wiki/Zulu_language.

39. Sesotho belongs to the Niger-Congo language family. It is spoken in Lesotho and South Africa by 5.6 million native speakers (2001–2012 census) and by 7.9 million L2 speakers in South Africa (2002 census). For details, see https://en.wikipedia.org/wiki/Sesotho_language.

40. Malayalam belongs to the Dravidian language family. It is spoken in India by 38 million people (2010 census). For details, see <https://en.wikipedia.org/wiki/Malayalam>.

41. Dagestan, officially the Republic of Dagestan, is a federal subject of Russia, located in the North Caucasus region. The Dagestanian languages belong to the East Caucasian language family. Dargi is one of its subgroups. For details, see van den Berg (2004: 197–198).

and a scalar additive particle ‘even’ (van den Berg 2004: 198–200). Examples are as follows.⁴²

- (43) a. *Dudeš.li-ra neš.li-ra emħe* [ra: NP-AND]
 Father(ERG)-and mother(ERG)-and donkey(ABS)
b-abg-ili sai
 N-harness-GER be:3H.PL
 ‘Father and mother harnessed the donkey.’
- b. *Qum<ma>rt-id b-arx yağlaw-ra* [ra: simple additive]
 Forget:PROH-FUT.2 N-with frying.pan(ABS)-and
kas-es
 take-INF.
 ‘Don’t forget to take the frying pan with you as well.’
- c. *Xunul+adam-t.a-ni duxu-ti-ra* [ra: scalar additive]
 Woman+person-PL-ERG clever-PL-and
meħur+b-ar-es b-ir-ar.
 mad+3H.PL-do-INF 3H.PL-can-FUT.3
 ‘Women can even drive clever people mad.’

-*Ra* is used as an NP-AND appearing after each coordinand (i.e. coordinated phrase) in (43a),⁴³ while it is used as a simple and a scalar additive marker, respectively, in (43b) and (43c). Van den Berg (2004: 21) further stated that the grammaticalization of an additive particle into an NP-AND is frequently observed not only in Dargi but also in many other Dagestanian languages.⁴⁴

Also, the grammaticalization of allative marker > scalar additive particle > NP-AND is also attested in other languages. For instance, *-ni* in Japanese and *-e* in Korean are not only used as allative markers, but also as scalar additive markers or as NP-AND. Examples of each usage in Japanese are as follows:

42. Examples adopted from van den Berg (2004: 199–200).

43. Coordinating constructions can be subdivided into so-called syndetic and asyndetic. One or more coordinators occurs in a syndetic coordinating construction, while in an asyndetic coordinating construction coordination is formed by simple juxtaposition of the coordinands. Syndetic constructions can be divided into monosyndetic and bisyndetic. The former involves only one coordinator (when no more than two coordinands are present, as is the case of English *and*), while the latter involves one coordinator per coordinand (as is the case of Dargi *-ra*). For more details and examples of asyndetic, monosyndetic, and bisyndetic constructions, see Haspelmath (2004: 4–5).

44. Examples include Avar *-gi*, Bagvalal *-la*, Hunzib *-no*, Lezgian *-ni*, Rutul *-ki*, and Archi *-wu*. For examples of each particle used as an additive particle, see van den Berg (2004: 212–213).

- (44) a. *Kisha ni noru* [allative marker]
 Train to ascend
 'ascend to the train'
- b. *Hon ni zasshi* [additive marker]
 Book in addition to magazine
 'book in addition to magazine'
- c. *Biru ni saidā ni* [NP-AND]
 Beer and cider and
 'Beer and cider'

(adopted from Chang (2019: 44), (44b) is originally from
 Ohori (2004: 50))

Ohori (2004: 50) interpreted (44b) as 'plus, in addition to, on top of'. He also argued for the use of *-ni* as an NP-AND derived from such usage.

In sum, it is legitimate to assume that the grammaticalization of an additive marker into an NP-AND is a very common phenomenon observed cross-linguistically. Regarding the underlying semantics for this development, König (1991: 66) explained: "Given that both additive particles and coordinating conjunctions link separate but parallel information to the preceding discourse, this relatedness in form is not really surprising."

于, 越, 暨, and 及 used as NP-ANDs were also derived from their usage as additive markers. When used as NP-ANDs, they appear in the form [NP1+于/越/暨/及+NP2]. NP1 and NP2 have the same semantic weight. The feature set of 于, 越, 暨, and 及 used as NP-AND can be described as [-verb, -motion, -goal]. Also, when 于, 越, 暨, and 及 grammaticalized from additive into NP-AND, there occurred a change in terms of constituency. That is, the constituency can be described as NP1+(.....)+[于/越/暨/及+NP2] when they are used as additive markers. When the grammaticalization into an NP-AND is complete, [NP1+于/越/暨/及+NP2] comprises a single constituent.

The grammaticalization path of verbs of location movement into NP-AND can be summarized as in Table 1.

So far, it has been shown that 于, 越, 暨, and 及 all belong to the class of verbs of location movement, and that they are grammaticalized into NP-AND in Archaic Chinese. However, there are differences in terms of the time and the text where each is frequently used as an NP-AND. For instance, 于 is used as an NP-AND in the OBI, and there is a vestigial occurrence in *Documents*. 越 is often used as an NP-AND in *Documents*. 暨 is used as an NP-AND as early as in the OBI,⁴⁵ and such a usage appears frequently in *Documents*, while there is no such occurrence of 越 or 暨 used as an NP-AND in *Odes*. 及 used as an NP-AND appears

45. See Yu (2013).

Table 1. The grammaticalization path of V[+motion, +goal] into NP-AND

Stage	The pattern in which 于 <i>yú</i> , 越 <i>yue</i> , 暨 <i>jì</i> , 及 <i>jí</i> appears	The feature set of 于 <i>yú</i> , 越 <i>yue</i> , 暨 <i>jì</i> , 及 <i>jí</i>
1. Verb indicating goal of motion	[subject+于/越/暨/及+place]	[+verb, +motion, +goal]
2. Co-verb indicating the end point of scope (“from X to Y”)	[自...至于...], [自...越...], [自...暨...], [自...及...]	越/暨/及: [±verb, −motion, +goal, +concrete] 于: [−verb, −motion, +goal, +concrete]
3. Additive particle (‘even’, ‘go) as far as’)	NP1+(.....)+[于/越/暨/及+NP2]+[.....]	[−verb, −motion, +goal, −concrete]
4. NP-AND	[NP1+于/越/暨/及+NP2] (change of constituency)	[−verb, −motion, −goal]

frequently in *Documents*, *Odes*, *The annals of spring and autumn* (*Chūnqiū* 春秋), and *Zuo's*, and in Warring States period texts such as *The annals of Lü Buwei* (*Lǚshì chūnqiū* 呂氏春秋) and *The strategies of warring states* (*Zhànguó cè* 戰國策).⁴⁶ It survived until the Early Medieval Chinese period (3rd–7th c. AD).

3. Summary

This paper argues that 于, 越, 暨, and 及, all of which were originally verbs of location movement, grammaticalized into NP-ANDs in pre-Archaic and Archaic Chinese. Their semantic feature set as verbs was [+verb, +motion, +goal, +concrete]. They first grammaticalized into a marker indicating the ending point of a scope (“from X to Y”), which is [\pm verb, –motion, +goal, +concrete], and further grammaticalized into a scalar additive particle, which is [–verb, –motion, +goal, –concrete]. When they finally grammaticalized into NP-AND, the constituency changed to [NP1+于/越/暨/及+NP2], and the two NPs before and after them had equal semantic prominence. [NP1+于/越/暨/及+NP2] often comprises a single semantic unit. As NP-ANDs, their feature set can be described as [–verb, –motion, –goal].

For understanding the significance of these stages of grammaticalization for the interpretation of 于, 越, 暨, and 及 in context, it must be underlined that an additive marker is a focus expression. The purpose of using an additive marker is to stress the co-occurring element. Therefore, what is added should not be interpreted simply as supplementary or secondary.

Abbreviations

1	first person (person agreement)	BI	Bronze Inscriptions
2	second person (person agreement)	Bingbian	<i>Fascicle three of inscriptions from the Yin ruins</i> (<i>Yinxu wenzi bingbian</i> 殷墟文字丙編)
3	third person (person agreement)		
ABS	absolutive	CONJ	conjunction
ACC	accusative	COP	copula
ART	article	DEM	demonstrative
ASP	aspect	<i>Documents</i>	<i>The book of documents</i> (<i>Shàngshū</i> 尚書)
ATR	attributive		

46. For details on the two origins and grammaticalization paths of 及 used as an NP-AND, see Footnote 34. For details on the occurrences of 及 as an NP-AND in contrast with 與 in Late Archaic Chinese texts, see Xu (1981).

DU	dual	o	obverse side of the platron
ERG	ergative	OB1	Oracle-Bone Inscriptions
fl.	flourished	OBJ	object
FUT	future	Odes	<i>The book of odes</i> (<i>Shijing</i> 詩經)
GER	gerund	PASS	passive
H	human	PL	plural
Heji	<i>Jiaguwen heji</i> 甲骨文合集	POSS	possessive
INDEF.ART	indefinite article	PROH	prohibitive
INF	infinitive	PRT	particle
M	masculine	R	reverse side of the plastron
MOD	modal	SG	singular
N	neuter	V, v	verb
NEG	negative	Zuo's	<i>Zuo's commentary</i> (<i>Zuozhuan</i> 左傳)
NP	Noun Phrase		
NP-AND	Noun-Phrase Conjunction		

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