Notes about Classical Chinese

Jinyuan Wu

February 22, 2025

Chapter 1

Introduction

1.1 The name of the language

This note is about Classical Chinese, the high variety of more than two millennia of diglossia in China. The language is known natively (in Mandarin Chinese) as 文言 ('lit. cultured speech') or sometimes 古文 ('lit. ancient articles') or 古汉语 ('lit. ancient Chinese'). Note that there were several stages of the development of Chinese and Classical Chinese is mostly (but not completely) based on Old Chinese (§ 1.2).

The language is sometimes known as *Wen-li* by Western missionaries, especially in Bible translation. This seems to be a misunderstanding of the word 文理, which is a nominal compound and means rhetorics (i.e. 文) and meanings (i.e. 理) of literature works. An educated person therefore would be described as "通文理" ('fluent in rhetorics and meanings'). Such a person of course would have decent understanding of Classical Chinese, and hence 文理 was probably mistranslated as "Classical Chinese", although the word was not natively used to refer to the latter.

1.2 Historical background

Since there was no attempt at explicit and systematic grammatical standardization (§ 1.5.1), prescriptive authority of Classical Chinese was a collection of canonical literature works consensually regarded as classical (§ 1.3). The whole canon was finished before the collapse of Han and therefore falls under the term Old Chinese. Both temporal and regional variances can be observed in Old Chinese texts, though, and not all varieties contribute to Classical Chinese equally. In this section, we briefly overview the history of Sinitic language(s) and analyze how they shape Classical Chinese.

1.2.1 Pre-classical period

The earliest attested Sinitic texts were oracle bone inscriptions, a 20th century archeological re-discovery not known to Classical Chinese authors. For them, the earliest available texts are documents preserved in《尚书》(lit. 'venerated documents'), often known as the *Book of Documents* in English. Since these texts are from ancient kings whose deeds were romanticized by Confucian scholars, these texts were highly venerated and yet deemed as 诘屈聱牙 ('twisted, hard to pronounce') by post-Classical authors.[1] They were something that had to be read with commentaries, the latter

[1]For example by Han Yu in 《进学解》(*Analysis of academic advancement*).

written in easier Classical Chinese. These documents therefore should be regarded as pre-Classical, although they did contribute sporadic phrases and grammatical words (e.g. the copula 惟 or the pronoun 厥) that were occasionally used in Classical Chinese works as a way to polish an article.

One thing worth mentioning is that the language of the *Book of Documents* and the language of oracle bone inscriptions are not identical. The most notable fact on this aspect is that the aforementioned pronoun 厥 appears frequently in the *Documents*, but it appears neither in oracle bone inscriptions nor in Spring and Autumn works. Possibly, *Book of Documents* contains predominantly early Zhou dynasty texts, while oracle bones dates back to Shang, and the differences we are observing reflect dialectal differences between the ruling classes of the two dynasties.

Another fairly early source is《诗经》(lit. 'poem classics'), also known as the *Book of Odes*, which contains poems dates back to as early as early Zhou. We note that the *Odes* is usually considered Classical, and yet given its poetic nature, its influences to Classical proses are not direct.

1.2.2 Spring and Autumn and Warring States

The majority of texts that shaped Classical Chinese proses were written in a time when Zhou was already substantially weakened. This period that witnessed prolificacy of Old Chinese works can be divided into two periods: the Spring and Autumn period which was filled with chaotic (but not intense) wars between numerous dukedoms, and the Warring States period which observed intense wars between seven major states, resulting in a unified Qin empire, which soon broke down because of resistances to its barbaric policies and eventually was superseded by Han dynasty (§ 1.2.3). The language of this period diverges tremendously from the pre-Classical period. For example, the copula 惟 had died out of use and the copula construction had been largely replaced by the nominal predication construction (§ 2.2.1). The conjunction 而 is never seen in pre-Sprint and Autumn texts but had already made its way into the *Analects*. The lexicon also underwent huge changes.

> **Box 1.1: Lexicon change**
>
> List some lexicon changes.

There are clues suggesting regional variances. Students of Confucius noticed that when he recited Classical texts and presided rituals, he used 雅言 or 'elegant speech' (*Analects* 7:18). This suggests a possible diglossia at as early as Confucius's own age, with the "elegant speech" conceivably being the language of intellectuals of Zhou Dynasty. Comparison between the language of Classical proses and the language(s) of poetry shows the relative homogeneity of the former, while the latter both demonstrate divergence from the language of the proses and regional differences.

> **Box 1.2: Peotry and prose**
>
> This is presumably due to how the texts were transmitted. It is likely that they were passed by recitation, and regularization happened to proses when there was a predominant dialect, while the prosody and rhyme structures of poems efficiently locked them to their original forms.

The language of 楚辞 (*Verses of Chu*), for example, has the following differences

with the language of the proses. The first is a Kra–Dai substrate.

Box 1.3: Chu dialect

Find references.

The language of the *Odes* also seems to slightly deviates from
Dialectal differences have also been observed within the *Odes* (List et al. 2017).

1.2.3 Han dynasty

The last batch of uncontroversially classical works were composed during Han dynasty, among them the most important being *Records of the Grand Historian*. The language of *Records of the Grand Historian* shows notable but largely qualitative differences compared with earlier historical works, the most important one being 《左传》. Notable changes include more pre-verbal adverbials, reduction of prepositional verbs, regularization of constituent orders, and also proliferation of disyllable words It is therefore suggested that Han dynasty texts and pre-Qin texts reflect two stages of post-Zhou developments of Chinese, although the change was definitely not as radical as the change from the *Documents* to Spring and Autumn texts (He 2005, pp. 260-264).

1.2.4 Post-Classical periods

The end of Old Chinese – and hence the end of the classical period – is marked by the collapse of the case inflection in the personal pronoun system, the emergence of 是 as a copula (and not just a demonstrative), the appearance of the disposal construction (i.e. the 把 construction) and the so-called long passive construction.

Box 1.4: References for Middle Chinese and modern Mandarin

- James Huang
- etc.

Expectedly, despite purification attempts, vernacular elements made their ways into not only administrative documents but also pure literature and scholar works. Classical Chinese or 文言, in the broadest sense, is a term that covers all genres whose grammars are roughly based on the Old Chinese canon but may have a varieties of innovations.

Box 1.5: Late regularization attempts

韩愈、因明学

1.3 Texts

The great historical work 《史记》('lit. historical records'), often known as *Records of the Grand Historian* in English (a translation of 太史公记, the earliest known title of the work), laid the paradigm of official historiography of all Chinese dynasties after Han. The author 司马迁 *Sima Qian* is known as the *Lord Grand Historian* or 太史公. 太史 'grand historian' was the title of

1.4 Theoretical framework

The theoretical framework of this work is Distributed Morphology plus Cartographic Syntax. The architecture of grammar is assumed to be in line with the basic assumptions of Distributed Morphology (§ 2.1), where we have a list of roots (List A), each of which is only compatible with certain syntactic positions in post-syntactic phonological realization (List B), and grammatical objects – bundle of roots and functional heads, or even larger objects – can be lexicalized with custom meanings (List C). Lexicalization is important for certain aspects of Classical Chinese grammar (e.g. § 5.2.2), which however can be well captured within Distributed Morphology, without lexicalist assumptions (c.f. Bruening 2018).

The analyses in § 2.2 and § 2.3 are clearly inspired by the extended CP and DP structures in Cartography. To avoid confusion caused by technical terms in generative syntax, I intentionally use terms like *sentence*, *nucleus clause* and *argument structure* in place of CP, TP and vP. Further, the notion of functional heads should be avoided, and concepts like SpecTP and SpecvP have to be replaced by concepts like *clausal subject/pivot* and *subject in the argument structure* (§ 2.2.5). Similarly we cannot talk about DO or CAUSE light verbs; I replace these concepts by concepts like *DO clause* or *CAUSE clause* (§ 2.2.3). The "core" of CPs and DPs (i.e. the roots at their centers plus the categorizers) should be known as heads. After doing so, we rediscover the good old subject-predicate and verb-object relations, subordination and coordination structures, and other *constructions*.[2] This procedure has been demonstrated in (Deng 2010), which shows that Minimalist generative syntax and constituency-based American structuralism as in Huddleston and Pullum (2002) and works outlined in § 1.5.3 are compatible to each other, with the former being a more concise form of the latter and the latter being a logical consequence of the former under certain assumptions.[3]

Grammars can be written in terms of *dependency relations*, instead of *constituency relations*. The two however are largely equivalent (Boston, Hale, and Kuhlmann 2009). In his Basic Linguistic Theory, Dixon (2009) fervently argues against constituency analysis (and also other aspects of generative syntax) and advocates for a "flat" constituency structure, possibly with the levels of clause and noun phrase only, where the rest of the grammatical information is represented by dependency relations (e.g. Dixon 2009, p. 49). Yet the binary constituency relations in generative syntax and in American structuralism have consequences. For instance, when applied to the argument structure, they are related to extractional properties of arguments in valency alternation (§ 2.2.5.1), and the subject-predicate binary division is directly related to the clausal pivotal status of the subject. These phenomena of course have to be taken into account by Basic Linguistic Theory, and labels like "clausal pivot" and "surface S, deep O" have to be attached to dependency arcs between the verb and the arguments, essentially labeling the "distance" between the two. As a parallel, the ancient India grammarian Pāṇini initially proposes a grammatical framework in which arguments are all equal, but later commentators still effectively set up a pivot position in the argument structure (Box 1.6).

Besides the theoretical problems outlined above, there are also some minor, largely notational inconsistencies between the grammatical theories mentioned here. One such inconsistency is the definition of the *phrase*. Dixon (2009) calls the main verb plus auxiliaries – without any argument – as the *verb phrase*. This actually makes sense in generative syntax because arguments are phases themselves, and the tense, aspect and modality categories marked by the auxiliaries are in some senses closer to the main verb. Yet the term *verb phrase* generally

[2] Here the term is used *without* the implication that a construction is somehow understood as a whole and its internal structures should not be further analyzed, contrary to the fundamental hypothesis of e.g. various Construction Grammars.

[3] Note that Deng (2010), Huddleston and Pullum (2002) and works in § 1.5.3 are all lexicalist, which we have argued is not necessary to account for phenomena purportedly supporting the lexicalist hypothesis.

means the verb plus internal arguments in constituency-based analyses. Another problem is the definition of *word*. Since we reject the lexicalist hypothesis, we need to distinguish between phonological wordhood, morphological wordhood (the boundary of the morphological template is the boundary of the morphological word), and syntactic wordhood. Syntactic wordhood in turn has several definitions. We can define a word to be a very small constituent: if it is impossible to infer the argument structure of a compound verb in a given language, then we conclude that the two branches of the compound are not categorized, and therefore the compound is a rather small constituent and hence a word. But in this way *sinned* is *not* a syntactic word as it involves a clausal category (i.e. the past tense). For *sinned* to be a syntactic word, syntactic wordhood can be based on Dixon's verb phrase, and inevitably *have been eating* is a syntactic word.

In conclusion, we maintain that Chomskyan generative syntax, constituency analysis in American structuralism as in Huddleston and Pullum (2002), and Basic Linguistic Theory (the de facto unified framework in modern linguistic description of underdocumented languages) are coherent and can be seen as three "representations" of the same grammatical complexity class, and their differences are mostly notational.[4] Which framework to use is to be determined by the properties of the language. For instance, although the definition of the verb phrase does not alternate the grammar system substantially, Dixon's definition works more smoothly for a language with a lot of auxiliaries but rather infrequent subject-sharing coordinations. It turns out that for most constructions, American structuralism is a good choice for Classical Chinese.

1.5 Previous studies

1.5.1 Native grammatical traditions

Classical Chinese authors had conversations about grammaticality and uses of grammatical particles reminiscent of how English native speakers with some exposure to the study of English grammar but no formal training: "delete the *the* here and your sentence looks more concise". No attempts were made to establish intermediate concepts between words and utterances, like structural templates of phrases or grammatical relations, and to organize the grammar as a machine producing acceptable utterances: discussions on grammatical topics were either for education or for rhetorics.

The grammatical awareness of Classical Chinese authors was somehow comparable to what an ancient Roman grammarian or *grammaticus* did, who set his main role as a secondary educator, refrained from analyzing some sort of "underlying" or "internalized" system behind the surface forms and was satisfied by mostly surface-oriented patterns, and would not set up any intermediate concepts between the word and the utterance (Matthews 2019, pp. 7,35,47-48). On the other hand, this approach is contrary to the practice of the Paninian Sanskrit grammatical tradition, which, in today's terminology, starts with dependency relations and abstract features and uses a set of morphophonological rewriting rules to produce the corresponding surface forms (Kiparsky 2009).

[4] A more important controversy is the mental status of grammar. The position of this work treats grammar as a semi-autonomous component of human's cognitive abilities. But it has been argued that grammatical constructions originate from domain-general cognitive abilities, and there is actually no such thing as an autonomous mental grammar. Detailed discussions on this topic are far beyond the scope of this work, and can only be finally settled down with the assistance of neurological studies. Here we just note that currently no comprehensive description of a language has been successfully attempted under this line of thinking. On the contrary, in physicists' terms, the grammatical framework adopted here is at least a good *effective theory*.

Box 1.6: Where does Pāṇini disagree with modern linguists?

The main difference between Pāṇini's treatment of Sanskrit and modern linguistic theories is that Pāṇini apparently treats all dependency relations equally and there is, for example, no concept of the pivot or the "external argument" of a clause. This is however modified in the commentaries of his *Aṣṭādhyāyī*, which explicitly allows an argument being promoted to the agent position because of the intentions of the speaker (Keidan 2017). The agent position thus becomes a subject position at least in the argument structure, consistent with modern practices (§ 2.2.5.1).

The Paninian tradition therefore is extremely close to modern linguistic description practice; the most important difference probably is that modern linguistic description, practically, may even be less rigorous than *Aṣṭādhyāyī*, because of possible competing "mind grammars" among speakers with mutual intelligibility or even within the mind of one speaker, and also the fact that a description as detailed as *Aṣṭādhyāyī* requires corpus data whose quality and quantity exceed the capacity of most field linguists.

The Classical Chinese grammatical tradition appears even looser compared with the Roman tradition in that the former did not even attempt to recognize parts of speech; this however was deeply rooted in the structure of Classical Chinese in that

Box 1.7: Ancient Chinese grammatical tradition and Roman tradition

Is the situation somehow close to what a Roman grammarian (*grammaticus*) would do? It seems that Roman grammarians also didn't care about abstract structures. See:

- Use and Function of Grammatical Examples in Roman Grammarians
- Quintilian's 'Grammar' (Inst.1.4-8) and its Importance for the History of Roman Grammar
- What Graeco-Roman Grammar was about

On the other hand, phonology was an active topic in ancient China. This was probably due to the influence of

1.5.2 Perspectives of European missionaries

Systematic and reliable grammatical description of Classical Chinese had unfortunately been lacking for quite a while (Pulleyblank 1995, p. xiii).

1.5.3 Modern descriptions

1.6 Remarkable features

Classical Chinese has several notable typological features.

Box 1.8: Remarkable features

- Part of speech
- Topic-comment
- "Coverb", or is there real preposition
- Prosody (and hence a chapter on phonology and writing system)

- The chapter on phonology and writing system can be very hard: lots of historical facts
- Passivization and so on
- Higher tolerance of ad-hoc recategorization: 名作动, 使动意动, etc.

Chapter 2

Grammatical overview

2.1 General principles

Like all natural languages, the syntax of Classical Chinese can be divided into the syntax of the clause (§ 2.2) and the syntax of the noun phrase (§ 2.3), both of which contain a hierarchy of grammatical systems. Concepts like noun-hood and verb-hood can then be defined according to the syntactic environment: a noun is what appears at the center of a noun phrase (NP), and a verb is what appears at the center of a clause (e.g. the distinction between nominal predication and verbal predication in § 2.2.1.3). In this sense, noun-hood and verb-hood in Classical Chinese have nothing inherently different from their counterparts in other languages.

Besides the syntactic constructions, a language also has a *lexicon* that dictates the details of whether and how a root or derived stem or a larger construction appears in certain syntactic environments and be phonologically realized. Here, we have a slightly different definition of parts of speech tags like *noun* or *verb*: they are defined *lexical* labels representing the structure of the *lexicon*, not the *grammar*. The *noun* class now represents a group of lexical items with shared grammatical properties, like frequently appearing as heads of noun phrases and having certain morphological properties. Demarcation of *this* definition of parts of speech often shows considerable cross-linguistic variance and is discussed in § 2.4 for Classical Chinese.

Box 2.1: Comparison between Latin and English nouns

For example, to say "the Latin word *canis* is a noun" means to say that the form *canis* usually appear as the head of an NP, that it carries an inherent gender feature and a number feature, and that its inflection pattern follows one of Latin nominal declensions. Modern English does not have rich inflectional morphology but does have nominal modification constructions (e.g. *a* $[dog]_{nominal\ (not\ NP)}$ *tag*), so saying that *dog* is a noun means something different with saying that *canis* is a noun.

We note that *canis* can be further analyzed as a root plus an ending. The Latin lexeme *canis* is actually a bundle of the root *cane-*, the masculine gender, a case feature (here nominative), a number feature (here singular), and the fact that it is the head of some complete NP. On the other hand, the root *cane-* appearing as the main verb of a clause is impossible, because a bundle of the root *cane-* plus some verbal features is *not* in the mental dictionary of a Roman. Nominal attributes are not possible in Latin, again because the mental dictionary of Romans does not contain anything like the root *cane-* without the head status of a NP.

The Latin form class *noun*, then, means the bundle "a gender feature, a case feature,

a number feature, and the head-of-NP status" plus how it is morphophonologically realized (i.e. the five declensions). The English concept of *noun* is quite different from that. Indeed, if we accept the hypothesis that abstract principles of language structures are more or less the same cross-linguistically, then the lexicon *has to* be highly diverse across languages because it is exactly the locus of language variance, besides morphophonology.

Turning back to Classical Chinese, when we say Classical Chinese has a noun-verb distinction in the *lexical* sense, we need to demonstrate that the lexicon of Classical Chinese has two largely non-overlapping groups, the elements of which regularly head noun phrases and clauses and have distinct properties in other morphosyntactic processes, respectively. In § 2.4 we demonstrate that this is indeed the case.

2.2 The overall clausal structure

Like all other languages, a Classical Chinese clause can be a simple clause or a complex one constructed from subordination (§ 2.2.8) and coordination (§ 2.2.9). A simple Classical Chinese clause can be divided into a nucleus clause (§ 2.2.1, § 2.2.2) plus discourse-related devices, including its speech act (§ 2.2.7) marked by sentence final particles (§ 2.2.2.4), and topicalization or focalization (§ 2.2.6). Topicalization can also happen for a complex clause (§ 2.2.9.2).

It appears that only sentences – clauses that appear as utterance units – have the aforementioned discourse-related devices like topicalization and sentence final particles. All embedded clauses (apart from direct quotations; § 2.2.3.2.1) in Classical Chinese do have these devices.

The nucleus clause may be either a nominal predicate clause (§ 2.2.1) or a verbal clause (§ 2.2.2). Both constructions seem to have a well-defined subject position (which is not the same as the topic), which however is often left blank (§ 2.2.5). Tense, aspect, mood (TAM) modifications (TODO: ref) seem to be only available for the verbal clause.

Box 2.2: Clause types

In Mei (2015, p. 131), he classifies clauses into 说明句, 描写句, and 叙事句. The classification is comparable to that given in http://area.hcjh.tn.edu.tw/noise/hcjh-ca/4-b.htm#0303 . Mei doesn't mention on which basis he makes this distinction. In the latter source, it seems the distinction is made based on the type of the predicate. Thus a 描写句 is a stative (adjectival?) clause, and a 判断句 is a nominal predicate construction, and a 叙事句 is a verbal predicate construction that is not a 描写句. So what does Mei mean by 说明句? The term appears in Li (2004) as well.

We can go to places where he mentions the term. p. 445: 矣 is for 叙事, and 也 is for 说明. pp. 264-265: 事件句 (叙事句) 和非事件句（描写句和说明句）The distinction is also mentioned in http://paper.wenweipo.com/2018/02/14/ED1802140024.htm

So it's related to the event structure. We need to know where the event structure resides in the vP-TP-CP hierarchy. Particularly, we need to identify *where* the category of this distinction lies. I think probably that's related to the aspect: consider the distinction between a habitual clause and a prototypical "event" clause.

The distinction has syntactic significances. We note that certain topicalization constructions seem to be only compatible with 说明句 (Box 2.14).

2.2.1 Nominal predication

2.2.1.1 Real nominal predicates

The top-level structure of a Classical Chinese clause may contain a (optional) subject and a NP acting as the predicate (1, 2). A nominal predicate may express an "is-a" relation between the subject (see § 2.2.5.2 for discussions on the meaning of the term) and the predicate, which is the case of (1). Some nominal clauses however express a possessive relation between the two (2).

(1) [秦]$_{\text{subject}}$，[虎 狼 之 国]$_{\text{predicate}}$
Qin tiger wolf GEN country
'Qin is a country of tigers and wolves (i.e. cruel and not reliable).'

(2) [蟹]$_{\text{subject}}$ [六 跪 而 二 螯]$_{\text{predicate}}$
crab six leg CONJ two claw
'A crab has six legs and two claws.'

Box 2.3: The possessive nominal predicate construction

It seems the predicate in the possessive nominal predicate construction can never be a bare noun without any modification. The modification can be a numeral or an attributive.

(3) 王六军，大国三军

(4) 秦王 [为人]$_{\text{Box 2.14}}$，蜂准，长目，挚鸟膺，豺声，少恩而虎狼心

Another problem is that the 者-也 construction seems to be incompatible with the possessive nominal predicate.

Negation in Classical Chinese nominal clauses is usually expressed by 非, placed before the nominal predicate (5).

(5) 凡群臣之言事秦者，皆奸人，非忠臣也

It seems besides the negation marker, no other constituents are allowed to appear in the nominal predicate construction.

2.2.1.2 Topicalization of nominal predicate construction

(1) is much less frequent than the 者…也 construction, often known as 判断句 in Modern Chinese or the 'judgemental clause'. A judgemental clause usually contains a particle 也 (§ 2.2.2.4) at its end (6), or a particle 者 after the subject (7), or both. It seems that the judgemental clause is better analyzed as a topic-comment construction (§ 2.2.6.1).

(6) [城 北 徐-公]$_{\text{topic: NP}}$，[齐-国 之 美-丽
city north NAME-GONG Qi-country GEN beautiful-beautiful
者]$_{\text{comment: § 2.3.1}}$ 也
REL SFP
'Mr. Xu from the north of the city is a handsome guy in the country Qi.'

(7) [兵]$_{\text{topic: NP}}$ 者， [不 祥 之 器]$_{\text{comment, predicate}}$
weapon TOPIC NEG fortunate GEN instrument
'Weapons are not auspicious.'

2.2.1.3 Distinction between a nominal clause and a verbal clause

Note that the term *nominal* in *nominal predication* or *nominal clause* refers to the fact that the predicate is structurally a NP, not whether the head of the predicate usually appears like a noun or a verb in a dictionary (§ 2.1). In some sentences although the predicate of a clause mostly appears as the head of a NP and therefore may be referred to as a noun in dictionaries, the clause is clearly a verbal clause because it expresses a dynamic event and not just a state, the possibility of TAM markers, etc., as in (8). Here 水 'water' is used as a verb, meaning 'swim', which is also modified by the modality auxiliary 能 'can'.

(8) [假 舟 楫 者]$_{\text{subject}}$，[非 能 水 也]$_{\text{predicate: VP}}$……
draw.help boat paddle REL NEG can swim SFP
'Those who draw help from boats and paddles cannot swim, …'

There are cases where the meaning of the predicate is comparable to that of a real nominal predicate. We still classify them as verbal clauses, because of their similarity with prototypical verbal clauses with respect to negation, TAM modification, TODO

(9) 大楚兴，陈胜王

(10) 然而不王者，未之有也

On the other hand, there is one thing a nominal predicate can do while a verbal predicate *cannot* do: a nominal predicate can be topicalized (§ 2.2.6.1, 57).

2.2.1.4 Copula constructions

All the constructions mentioned above are without a copula. In the pre-Classical copula age there is a copula 惟, which however had largely died out of use in Classical texts. Meanwhile, grammaticalization had added several copulas to Classical Chinese (Pulleyblank 1995, pp. 20-22).

2.2.2 Verbal predication

The structure of clauses with verbal predicates is much more complicated, and the details can only be described in the following sections. In this section we overview grammatical systems within verbal clauses.

2.2.2.1 Constituents and ordering

In clauses with verbal predicates, the constituent order of core constituents of transitive clauses is almost always SVO (11, 12). Intransitive clauses have a SV constituent order (13). The usage of the term *subject* is justified in § 2.2.5, and the contents of a verbal clause besides the subject is often defined as the verb phrase (VP). VPs can be coordinated (§ 2.2.9). Prepositional complements are also placed after the verb (14). The term *object*, without specification, means any argument in the VP that is not marked by a preposition (§ 2.2.3.1.2).

(11) [子张]$_{\text{subject (§ 2.2.5)}}$ [[学]$_{\text{verb}}$ [干禄]$_{\text{object}}$]$_{\text{predicate: VP}}$

(12) [子]$_{\text{subject}}$ [奚]$_{\text{reason (§ 2.2.3.5)}}$ 不 [为]$_{\text{verb}}$ [政]$_{\text{object}}$

(13) 君子不器

(14) 君子博学于文

Object pronouns however can be extracted before the verb in negative clauses (15), leading to a SOV order. An interrogative object pronoun can also be fronted (16).

(15) 恐 [年岁之 [不吾与]$_{\text{VP: Neg-OV}}$]$_{\text{complement clause}}$

(16) 以五十步笑百步，则 [何如]$_{\text{SOV interrogative clause}}$

2.2.2.2 The structure of the verb

It is possible that the main verb of a verbal clause contains more than one root. Such a verb is known as a complex predicate.

> **Box 2.4: Classical Chinese complex predicate**
>
> Directional complement and resultative complement

2.2.2.3 Positions of modifiers

Adverbial constituents in the nucleus can be divided into TAM ones and so-called peripheral arguments, including location, manner, instrument, etc. The peripheral arguments can be post-verbal (17, 18, 19) or pre-verbal (20, 21, 22), with the pre-verbal order gaining popularity as time went by. The linear order of peripheral arguments is similar to that in Mandarin (He 2005, pp. 286-287).

(17) 侍饮于长者

(18) 孟孙问孝于我

(19) 祷尔于上下神祇

(20) 韩生南向坐

(21) 於人之罪无所忘

(22) 为人谋而不忠乎

The TAM adverbials are almost always preverbal.

(23) 文王既没，文不在兹乎

(24) 孔子既得合葬于防

(25) 我未之能易也

When TAM adverbs and peripheral arguments both appear before the verb, the order is always TAM > peripheral argument. The reverse order is never attested. The whole VP therefore can be analyzed as a core VP plus peripheral arguments surrounding it, plus TAM adverbs preceding the pre-verbal peripheral arguments. The clause then is the complete VP plus the subject.

(26) 三王 [既]$_{\text{TAM}}$ [以]$_{\text{instrument}}$ [定法度]$_{\text{VO}}$

Box 2.5: Adverbials combination

Is it possible to use multiple pre-verbal peripheral adverbials? What's the relevant order constraint?

Box 2.6: Position of adverbials in SOV case

Where to place adverbials in SOV case?

Box 2.7: Position of negator

Where is the position of the negator?

2.2.2.4 Sentence final particles

Classical sentence final particles have a variety of functions. It may mark the interrogative force (27), a judgemental meaning (28), and aspectual values (29).

(27) 大车无輗，小车无軏，其何以行之哉

(28) 人而无信，不知其可也

(29) 温故而知新，可以为师矣

It seems a sentence final particle can be shared by two conjuncts.

(30) 虎者，戾虫；人者，甘饵也

2.2.2.5 The gerundive construction

Classical Chinese has one gerundive construction with a structure comparable to the English gerundive non-finite clause *his playing national anthem*. This construction may appear as the object (31) or as a subordinated clause, like a conditional or temporal clause (32; § 2.2.8).

(31) 王 如知 此，则 无 望 [民 之 多 于 邻
king if know this then NEG hope people GEN more than neighbor
国]$_{\text{object: gerundive}}$ 也
country SFP
'If Your Majesty knows this, then don't expect your people to be more plentiful than your neighboring countries' people.'

(32) [父母之爱子]$_{\text{condition: gerundive}}$，则为之计深远

2.2.3 Argument structures

2.2.3.1 Core argument structures

2.2.3.1.1 DO, BE and BECOME Consistent with cross-linguistic generalizations, in Classical Chinese, a verbal clause can be about an intentionally initiated event (DO; § 5.1.1), a state (BE) or a change of the state (BECOME; § 5.1.2). The DO type can further be divided into the transitive and intransitive classes. BE and BECOME clauses are intransitive by definition. The distinction between the three classes has consequences

for animacy and volition of the subject (see the sections referred above) as well as the viability of certain grammatical processes (§ 5.1.1.1).

BECOME and BE clauses are often inputs to the synthetic causative construction, resulting in CAUSE-BECOME/BE clauses (§ 2.2.3.3.1), which often develop lexicalized usages (§ 2.2.3.4).

2.2.3.1.2 Prepositional arguments and applicative constructions Prepositional arguments can also be observed in Classical Chinese. In (33), for example, the prepositional phrase 于车 is the *source* of the event. A prepositional argument can also appear in a transitive construction, coding a wide varieties of semantic roles, like the recipient (34, 35), or the target of a question (36). It is not possible for a prepositional argument to appear before the object. Classical Chinese also does not have quirky subjects: it is not possible for a prepositional phrase to appear in the subject position.

(33) 公 惧， 队 于 车
king afraid fall from carriage
'The king was afraid and fell from the carriage.'

(34) 成王、康王……故赐之以重祭

(35) 秦复予我河外及封陵为和

(36) 季康子问政于孔子

Classical Chinese has applicative constructions that turn an argument structure containing a prepositional argument into a double object construction (37). In this case, the argument corresponding to the prepositional argument in (36) behaves like the monotransitive object in constituent orders and in valency decreasing (§ 2.2.5.1.2, § 5.3.1.1), which means it is somehow more "external" or "subject-like" (§ 2.2.5.1.2).

(37) 上问上林尉诸禽兽簿

It should be noted that there exists another type of double object construction derived from verbs with a prepositional argument: the preposition of the prepositional argument may be omitted after the verb: compare the prepositional (38) and the double-object example (39). The omission seems to be in line with the omission of the preposition in post-verbal locative arguments (c.f. 52).

(38) 有献不死之药于荆王者

(39) 请献盆缶秦王

In some languages, the argument structure of verbs meaning giving and receiving seems to contain a small clause. In English, for instance, we have *give this to him and that to her*, and in Latin we even have standalone small clauses like *Deo gratias*. No trace of such possessive or directional small clauses is found in Classical Chinese: double object clauses with giving or receiving meanings seem to be analyzable as applicative clauses (Mei 2015, pp. 416-421).

2.2.3.2 Verbal complementation

Verbal complementation in Classical Chinese includes various complement clause constructions, and clauses with sub-clausal complements.

(40) 子使漆雕開仕

(41) 雍也可使南面

2.2.3.2.1 Direct quotations Direct quotations in Classical Chinese may appear within the VP just like an ordinary object (42). Note that the quoted content is a *sentence*, which includes a sentence final particle, which is usually not allowed in other embedded clauses (TODO: ref). We however note that the verb in the V-quotation construction illustrated in (42) is limited to 曰. For other "speaking" verbs, the direct quotation is introduced in the way of (43).

(43) can be analyzed as an object sharing construction, where 问于子贡 and 曰 are coordinated at the argument structure level (§ 2.2.9.1), and the direction quotation is an argument of both 问 (c.f. 36, where the direct quotation in 43 is replaced by the NP 政 'politics'). We however note that 曰 has possibly grammaticalized in Classical texts. In (44), the constituent introduced by 曰 is a proper name, and clauses with 曰 as the main verb where the subject is a person and the object is a proper name are rare if not impossible. If 曰 in (44) is understood as a marker of a direct quotation, however, the sentence makes sense: the second argument has a *metalinguistic* usage, whose semantic interpretation is the quoted 灵台 itself, without referring to anything in the real world.

(42) 子曰："不患人之不己知，患不知人也。"

(43) [子禽]$_{\text{subject: NP}}$ [问]$_{\text{verb}}$ [于 子贡]$_{\text{target: PP}}$ [曰："…"]$_{\text{direct quotation}}$
NAME ask at NAME say
'Ziqin asked Zigong: …'

(44) [谓]$_{\text{verb}}$ [其台]$_{\text{object: NP}}$ [曰 [灵台]$_{\text{proper name}}$]$_{??}$

Therefore, in Classical Chinese, 曰 is both used as a lexical verb (42) and a grammaticalized marker of direct quotations. What is quoted can be a sentence (43) or a noun phrase (44). Under this analysis, examples like (45) are probably clauses with nominal predicates, with the predicate being a direct quotation.

(45) 其名曰觚

2.2.3.2.2 "Prototypical" complement clause constructions

(46) 臣窃以为 [不便於君]

2.2.3.2.3 Pivot constructions or argument sharing Certain verbs have two internal arguments, the first is the object of the main clause, and the second is a complement clause, whose subject is the aforementioned first object, i.e. the object of the matrix clause. This construction is sometimes known as the *pivot construction* (Pulleyblank 1995, p. 40) or 兼语式 in Chinese (Mei 2015, p. 375).

A clear instance of the pivot construction is the analytic causative construction (§ 5.2.3). (47) is an example. Uncontroversial pivot constructions are limited in number in early texts, because many of them can also be analyzed as argument structure-level coordination (Mei 2015, p. 376; § 2.2.9.1).

(47) 令军勿敢犯

Box 2.8: Other verb frames

Control construction, etc.

2.2.3.3 Valency alternation

2.2.3.3.1 Valency increasing Various valency increasing constructions exist in Classical Chinese, which all append a subject, i.e. an external argument (§ 2.2.5.1) to an existing argument structure.

The most productive valency increasing construction is probably the synthetic causative, whose outputs are "transitive" CAUSE clauses (§ 5.2) that are similar to but subtly different from transitive DO ones.

Classical Chinese seems to already have a prototype of what is later known as the disposal construction or the 把 construction in later Sinitic languages.

(48) 尽以其宝器赂献于周厘王

2.2.3.3.2 Valency decreasing Classical Chinese also has valency decreasing constructions, which *suppress* the subject and promote an internal argument (§ 2.2.5.1.2) to the subject position (§ 5.3). Valency increasing after valency decreasing is also possible: (49) is an example of a causative clause based on the pseudo-passive construction.

(49) ……杀御叔 (=9 in § 5.2.1)

2.2.3.3.3 Applicatives In § 2.2.3.1.2, we see that Classical Chinese also has productive applicative constructions, and the resulting argument structure is subject to valency decreasing.

2.2.3.4 Argument structure and verb classes

The only fundamental constraint to whether a stem appears in a transitive DO or intransitive DO or BECOME construction is its semantics. In world languages, however, whether a root or a stem is compatible with a certain verb frame is dictated by the lexicon of the language, and a group of root-environment complexes with shared properties is known as a part of speech (§ 2.1). Thus we can say if a *verb* (and not the clause it heads) is transitive or intransitive, or whether it is an action verb (i.e. a DO verb), a stative verb (i.e. a BE verb), a internally caused change of state verb (i.e. a BECOME verb) or an externally caused change of state verb (i.e. a CAUSE verb, which may be CAUSE-BECOME or CAUSE-BE or even without an intransitive counterpart). Analysis of argument and event structures is closely related to verb classification.

2.2.3.5 High-level categories of the VP

Certain constituents within the VP can appear before the main verb. In (50), the preverbal constituent 以其妹 seems to be a fronted prepositional argument. It cannot be the sentential focus, because the subject 季康子 seems to stay in-situ with no pause after it. It is likely that a VP-internal focus position exists in Classical Chinese, which, cross-linguistically, is not rare (e.g. see Danckaert (2011)). A further piece of evidence suggesting the in-VP analysis of (50) is that the fronted prepositional phrase may further undergo preposition-object inversion (51), an operation that is otherwise not observed in Classical texts and also not motivated: the best explanation of this inversion seems to be focalization (Mei 2015, p. 323).

(50) 季康子 [以其妹]$_{\text{VP-focus: prepositional phrase}_i}$ 妻之 $-_i$

(51) 室於怒而市於色

It is possible to omit the preposition of the

(52) [大-王]$_{\text{subject: NP}}$ 见 [臣]$_{\text{object: NP}}$ [列 观]$_{\text{locative: NP}}$
great-king see servant/minister regular palace
'Your Majesty see (your) servant (i.e. me) at a regular palace.'

2.2.4 Tense, aspect, modality, and things like that

Whether a clause is a DO clause or a BECOME clause or a BE clause is also related to the lexical aspect of the clause, which in turn may have non-trivial interactions with TAM categories.

> **Box 2.9: Aspects of TAM marking**
>
> Are TAM markers allowed in the pivot construction? This is related to whether Classical Chinese has infinitives (Mei 2015, p. 375).

2.2.5 Subjecthood

In § 2.2.1.1 and in § 2.2.2.1, we both mention the concept of *subject*, which needs justification. Further, the bipartite division of a verbal nucleus into a subject and a VP in § 2.2.2.1 means that the subject is in some senses *external*, while other arguments within the VP are *internal*. Cross-linguistically, it is not impossible for a language to demonstrate two types of *externality*, one based on argument structure properties like obligatory argument omission in control constructions or binding of reflexive pronouns (§ 2.2.5.1), another based on clausal pivot properties like subject sharing in coordination and relativization (§ 2.2.5.2). The two being different means syntactic ergativity, which is rare among attested world languages (Aldridge 2008), and is absent in Classical Chinese.

Another problem is the distinction between subject and topic. Since both the topic and the subject appear at the beginning of a clause, the distinction between the two seems unclear. We can even go as far as claiming that Classical Chinese has only information structure and no argument structure in its syntax (Mei 2015, p. 122). The matter is further complicated by the fact that Classical Chinese has no native speakers now and detailed grammaticality tests are not available, and that Classical Chinese is a pro-drop language so obligatoriness is not a viable criterion. Still, we believe that the existing evidence is sufficient to justify postulating a subject grammatical function in Classical Chinese besides the topic position, which is for information structure marking (§ 2.2.5.3).

2.2.5.1 Subjecthood in argument structure

2.2.5.1.1 Obligatory relation between semantic roles and linear order We observe that the semantic relation between some clause-initial NPs and the verb is fixed by properties of the verb, while the semantic relation between some clause-initial NPs and the verb is more flexible, and these NPs are related to some internal positions of the nucleus clause. We therefore rightfully call the first type of clause-initial NPs subjects, and the second type of clause-initial NPs topics.

(53), for example, contains three constituents, and therefore can only be a verbal clause, with the last constituent being the object. The verb 客 is a derivation from the noun 客. Such a derivation, according to our experiences with other Classical Chinese texts, can only be causative or tropative or benefactive. By considering the context we will know the clause is a tropative one and the right translation is 'Lord Mengchang considers me as a guest.' Therefore, by virtue of being at the initial of the clause, the NP 孟尝君 *has to* be understood as what initiates the event, can be neither the patient nor peripheral roles in the event (e.g. an instrument). The *obligatory* relation between the verb and the NP 孟尝君 clearly shows the latter is a subject, and not a topic.

(53) 孟尝君客我

It should be noted that the subject can be the patient, as in (54). This however again is an *obligatory* semantic relation between the verb 定 and the NPs 国 and 天下. By virtue of being the only argument of 定 and appearing before the verb, 国 and 天下 are obligatorily understood as the patients. They cannot be understood as, say, the location of the event ('*Someone causes peace (i.e. 定) to something else in the state (国) and the universe (天下)'). Clauses like (54) are therefore better analyzed as valency alternation constructions.

(54) 国定而天下定

2.2.5.1.2 Subjecthood in argument structure and valency alternation The existence of a subject on the level of argument structure is relevant in valency alternation, as in e.g. § 5.1.3 and § 5.2.1: a structure with a subject is too "big" for certain operations.

An internal argument – always an object, not a prepositional argument – in a clause may be promoted to the external subject position in another clause (e.g. § 5.1.2). It is possible for multiple objects to co-exist, and as all double object constructions in Classical Chinese seem to be related to one applicative construction or another (§ 2.2.3.1.2), the rule is that the object introduced by the applicative gets promoted to the subject position. We may say that the object created by the applicative is the "second most external" argument. This hierarchy of externality of arguments is not uncommon in world languages (Box 2.10).

> **Box 2.10: Multiple external arguments?**
>
> In Japhug, it is possible to have a *causer→instrument→agent→patient* argument structure, and the personal indexation marker seems to be decided by first taking the two most internal arguments and decide which is more salient on the empathy hierarchy, and then compare the result with the third most internal argument and decide which is more salient, and finally compare the result of the last step with the most external argument; hence 1→3→2→3 is morphologically equivalent to 1→2 (Jacques 2021, p. 310, p. 584, (116), p. 848, (67)).
>
> In Classical Chinese, the synthetic causative construction generally cannot be applied to an argument structure already with a subject (§ 5.2.1), so structures like this are not possible. Yet as is seen above, a similar hierarchy can be built by the applicative.

2.2.5.2 Subject as clausal pivot

In § 2.2.5.1, we see that subjecthood can be defined in the argument structure in verbal clauses. Yet properties commonly attributed to subjecthood are not just about the

argument structure. For instance, in the nominal predicate construction (§ 2.2.1), we call the first NP the subject, and there is no such thing as the argument structure there. What we want to know is whether both verbal and nominal clauses in Classical Chinese have a pivotal position in it which everything else "revolves around" which could be called the *subject*.

The most clear criterion that defines clausal pivotal subjecthood is probably coordination: if when clauses are coordinated, one constituent seems to be shared by all of them, then this constituent is probably the clausal pivot. It turns out that what is defined as the subject according to its behaviors in the argument structure indeed is also the pivot in coordination (§ 2.2.9, 74). Note that two coordinated clauses can also share a topic, but there are signs which tell us that what is shared is the topic and not the subject (e.g. § 2.2.9, 75, where the topic is the object of the first clause and the subject of the second clause).

Box 2.11: Definition of VP

Can a verbal and a nominal predicate be coordinated?

Box 2.12: Subject and TAM

Subject and TAM in English are closely related. (e.g. control construction) What about Classical Chinese?

The observation that the argument structure subject in verbal clause turns out to be the clausal pivot and that the TODO: nominal clause justify the usage of the term *subject* outlined in the beginning of this section.

2.2.5.3 Comparison with topic

We have already argued that in every Classical Chinese clause, there is a (possibly empty) subject position, which is largely *independent* to information structure factors and therefore is not a topic. On the other hand, authentic, information structure-related topics are marked by devices not always available for subjects (like the particle 者 or a pause; § 2.2.6.1). So indeed subject and topic are two distinct concepts in Classical Chinese.

This does not mean that there are no blurry cases. This probably leads to some scholars to treat any constituent that seems to be "external" as a subject (e.g. Li 2004, p. 41), and hence the topic is a "big subject" (Li 2004, p. 42).

2.2.6 Information packaging

2.2.6.1 Topicalization

Topicalization in Classical Chinese is usually marked by adding the particle 者 after the topic. In the reading tradition, a pause is often inserted after 者, which cross-linguistically suggests topicalization (55, 56). In these examples, the subject is topicalized. We note that the structure of these two examples is comparable to that of the "judgemental clause" (§ 2.2.1), which obliges us to analyze the judgemental clause as topicalization of the nominal predicate construction.

(55) 此二人者，实弒寡君

(56) 单父人吕公……吕公者，好相人，……

What is topicalized is of course not restricted to the subject. This fact is a piece of evidence supporting the distinction between subject and topic in Classical Chinese. In (57), the comment clearly has a nominal predicate. What is promoted to the topic position however is not the subject of the nominal predicate construction, but the predicate. The subject is likely the *focus* and not the topic (Mei 2015, p. 138). Topicalization of other clausal constituents is also possible (e.g. § 2.2.9, 75).

(57) $[仁之实]_{\text{topic: NP}_i}$，$[[事亲]_{\text{subject: ?}}\ [是]_{\text{predicate: pronoun}_i}]_{\text{comment}}$ 也

We also note that the 者…也…framework is not limited to topicalization of nominal predicate clauses (i.e. "judgemental clauses"). For instance, we have (58), in which the sole argument in a existential clause is topicalized, and the comment receives 也 as its sentence final particle.

(58) 然而不王者，未之有也

We also note that topicalization can happen multiple times (59).

(59) 万乘之国，弑其君者，必千乘之家

Box 2.13: Dangling topic

Are there dangling topics in Classical Chinese? If not, it's a another piece of evidence supporting the distinction between subject and topic.

Box 2.14: A 之于 B 也

(60) 寡人之于国也，尽心焉耳矣

(61) 其为人也，发愤忘食，乐以忘忧，不知老之将至云尔

A 之于 B 也 (or A 之为 B 也)，predicate, or A 为 B 也, predicate. The structure seems to be parallel to the English *I, as a concerned citizen, want to emphasize that …*, where *as a concerned citizen* obligatorily modifies the subject *I*. 其为人也 here seems to be a *frame*, somehow comparable to the "global" temporal or locational phrase. Another issue is that the sentence seems to be unable to represent a specific event: * 昨日，孔子为人也，发愤忘食, while we have *yesterday, as a concerned citizen, I …*

(62) 水之积也不厚，则其负大舟也无力。

2.2.6.2 Focalization

Topicalization is marked by fronting and a pause, but what is fronted and before a pause is not necessarily a topic. In (63), for instance, the verbal predicate is fronted, which likely is not topical. Note that the sentence final particle is fronted as well.

Box 2.15: Fronted SFP

The phenomenon can be analyzed in multiple ways. We may assume that (63) is essentially some sort of cleft construction, in which the subject is first separated from the rest of the clause and then the rest of the clause is focalized. Or we can analyze 矣 as a TAM

marker, and not a marker from the CP layer. Or maybe we can argue that markers from CP layers are morphologically verbal and have to be attached to either the main verb or the verb phrase. Which analysis works best depends on whether they are consistent with other phenomena.

- Can we prove that the SFPs are very "high-level" and are above the topic layer? For example, can two clauses with different subjects share a SFP?
- Semantically do 矣 carry TAM meanings?

(63) [[甚]$_{VP_i}$ 矣]$_{focus}$，[汝 之 不 惠]$_{subject:\ gerundive\ (§\ 2.2.2.5)}$ 一$_{predicate_i}$
extreme SFP 2 GEN NEG smart
'You are so stupid! (lit. So extreme is your being unintelligent!)'

Box 2.16: A complete overview of the left periphery

See https://referenceworks.brill.com/display/entries/ECLO/COM-000248.xml

2.2.7 Speech acts

2.2.7.1 Sentential aspect

At the first glance, the sentence final particle 矣 marks the perfect aspect (64), while 也 is for clauses describing something happening regularly, not a single concrete event (65) (Mei 2015, pp. 443-445).

(64) 余助苗长矣

(65) 将发命也

矣 and 也, however, are different from prototypical aspect markers in several aspects. First, 矣 appears predominantly in direct quotations in Classical texts, which suggests that it has conversational functions. 也 frequently appears in narratives as a part of the judgemental construction (§ 2.2.1.2), which lacks TAM marking, and 也 cannot be a prototypical aspect marker in that context. Second, it seems that 矣 and 也 can be shared by two coordinated conjuncts with different subject (§ 2.2.2.4), which is rather unusual for an aspect marker.

Therefore, the grammatical category corresponding to 矣 and 也, whatever it is, is not a typical TAM category, and hence we disagree with Mei (2015)'s analysis. Its scope is wider than TAM categories: a TAM category is in relation with a nucleus clause, while 矣 and 也 are in relation with a sentence, i.e. an arbitrarily complex clause that is one utterance in a conversational context. This is consistent with the usual analysis of sentence final particles in modern Standard Mandarin (Paul 2014b; Pan 2021).

(66) 亦各言其志也已矣

Box 2.17: Alternative analysis

Zhu (2009, p. 233) acknowledges the wide spread of the analysis that sentence final particles are in relation with the whole sentence, not the nucleus clause, but insists that certain sentence final particles are a part of the predicate. Yet no convincing argument is provided. Among the three distributional classes he recognizes in Mandarin, two (marking the interrogative/imperative force, and attitude of the speaker) are uncontroversially attached to *sentences* and not nucleus clauses. The remaining class, which is called the "tense" class by Zhu (2009) and is structurally the innermost, resembles the class of 矣 and 也 discussed here, seems to be forbidden in most embedded clauses (Deng 2010), just like the other two class do. Therefore all the three classes of Mandarin sentence final particles described in Zhu (2009) are indeed in relation with the sentence and not the nucleus clause, which is consistent with the structural status of sentence final particles in Classical Chinese.

We also note that it is not completely impossible for two independent nucleus clauses to share one TAM marker. In Japhug, for example, a series of nucleus clauses with different subjects can be coordinated with the TAM categories being marked at the end of the compound clause (Jacques 2021, pp. 1090-1091). However, Japhug lacks clear clause-level subject (Jacques 2021, § 2.5.3; although subjecthood is well-defined at the level of argument structure (Box 2.10)), and therefore coordinated nucleus clauses with a shared TAM marker but different "subjects" is less strange in Japhug than it is in Classical Chinese: in the latter, we have a well-defined clausal pivot grammatical relation (§ 2.2.5.2) whose scope is over all TAM categories, making clauses sharing the TAM marker but not subjects rather unusual, but in the former this is probably not the case.

Mei (2015, pp. 443-445) relies solely on semantic criteria. Although we do not believe his analysis of 也 and 矣 as tense marker is completely correct, the two clearly have non-trivial interaction with TAM categories, a phenomenon also observed in Mandarin, where the lowest sentence final particle has access to TAM categories of the nucleus clause (Paul 2014a, p. 258).

2.2.7.2 Interrogative, exclamative, and imperative

The interrogative speech act, for example, is marked by 乎 and other particles (67). The exclamative speech act is similarly marked by sentence final particles (68). We note that in (68), the sentential aspect marker 矣 appears before the exclamative 夫, which means that the two systems of particles can coexist. The reverse order * 夫矣 is not possible.

(67) 其能久乎？

(68) 吾死矣夫!

2.2.8 Subordination

The term *subordination* sometimes means all kinds of clause embedding. In this section we primarily focus on bipartite clauses with the structure and meaning of 'if ...then ...' or 'when ...', and leave relative clauses and complement clauses to TODO: ref

An overview of subordination constructions in Classical Chinese can be found in Mei (2015, Ch. 3). In all Classical Chinese conditional constructions, the condition usually appears before the consequence (69, 70, 71). The consequence can be marked by 则 (69). Sometimes the marker 则 is dropped (70) but putting it back should never

render a sentence ungrammatical (Mei 2015, p. 86). The marker 乃 is also available as a marker of the consequence clause (Mei 2015, p. 87).

The condition clause can also be marked. Classical Chinese distinguishes between realis and irrealis conditional constructions: the former are marked by e.g. 既 (69), while the latter are marked by e.g. 若 (71). This distinction is relevant to the licensing of TAM markers (Mei 2015, p. 81). Other markers for the condition clause are also available (Mei 2015, Ch. 3). We note that the marker 若 is able to appear *after* the subject of the condition clause (Mei 2015, p. 94).

(69) [既来之]$_{\text{condition}}$，[则安之]$_{\text{consequence}}$

(70) [杀女]$_{\text{condition}}$，[我伐之]$_{\text{consequence}}$

(71) [若已食] 则退

Box 2.18: Position of condition marker

When the subjects of the two clauses are shared, it seems 若 obligatorily appears after the subject of the first clause. A possible analysis is to assume that the subordination construction is working at the level of VPs.

An interesting phenomenon is that the condition (72) or temporal clause (72) can be a gerundive one (§ 2.2.2.5). This is not surprising cross-linguistically, as the condition clause or the temporal clause is usually the "subordinate" clause, while the consequence clause is the "main" clause, and it is not uncommon for the subordinate clause in a clause subordination construction to have a non-finite structure. This is observed in for example Japanese and Turkish. Note that the marker 若 can be attached to the gerundive condition clause as well (Mei 2015, p. 98). In some condition clauses, the marker 而, instead of the otherwise genitive marker 之, appears between the subject and the predicate, forming a clause type that is not gerundive and only appears as an irrealis condition clause (Mei 2015, pp. 100-102).

(72) 我之不德，民将弃我

(73) 臣之壮也，犹不如人

2.2.9 Coordination

Explicit marking of coordination is primarily done by the marker 而. When used as a conjunction marker, 而 can be used to link two clauses or two verb phrases with a shared subject (74), but not two nominal constituents. Note that the functionalities of 而 is not restricted to conjunction (Mei 2015, p. 183).

(74) 声伯四日不食以待之，食使者，而后食

2.2.9.1 Coordination of VPs

Recall that a VP contains an argument structure (§ 2.2.3) and a set of TAM markers (§ 2.2.4). Therefore, coordination of two VPs actually has two structural possibilities: coordination of two argument structures, resulting in a *single* situation (and the clause is *not* a prototypical compound clause), or coordination of two full VPs (Mei 2015, pp. 192-201). In languages with TAM inflections, in the first scenario, it is likely that

the two verbs have one TAM marker in total, or obligatorily have two identical TAM markers. The distinction may also influence relativization (Mei 2015, p. 207).

Classical Chinese does not have TAM-based verbal inflection, but the distinction between the two can still be told

2.2.9.2 Topic chains as syntactic coordination

An interesting question is the interaction between topicalization and coordination. Mei (2015, p. 217) contends that "topic chains", i.e. several clauses with a shared topic (Mei 2015, Ch. 4 § 3.3), are discourse structures and not syntactic structures. Therefore topicalization happens first, and coordination happens then: after that no further topicalization is possible. He further argues that clauses in a topic chain cannot be linked together by 而. (75) however seems to be a counterexample. This example clearly contains two coordinated clauses. In the first clause 取之于蓝, 之, appearing after the verb, can only be a pronoun, and the only sensible reading of the clause is that 之 (the object) is coreferential with 青 at the initial of the sentence, and 取之于蓝 then means '(people) extract it (i.e. indigo dye) from *Indigofera*.' Therefore, 青 at the initial of the sentence is the object of the first clause and the subject of the second clause, meaning it cannot be the shared subject. This, together with the traditional pause after the first 青, means the first 青 likely is a topic, which means here topicalization happens *after* coordination.

(75) [青]$_{\text{topic: NP}_i}$，$-_i$ 取 [之]$_{\text{object: Pronoun}_i}$ 于 蓝 而 $-_i$ 青 于 蓝
indigo.dye pick it from *Indigofera* CONJ blue than *Indigofera*
'Indigo dye, people extract it from *Indigofera*, but it's bluer than *Indigofera*.'

2.3 The noun phrase

The Classical Chinese NP can be roughly divided into the determiner region and the "core" region, the latter known in Huddleston and Pullum (2002) as the *nominal*.[1] The latter is just the head noun plus possible complements and modifications, and the first can be left empty or be a demonstrative, or a "possessor", the role of the latter being not confined to a semantic possessor (Pulleyblank 1995, p. 61). When the "possessor" is present, the particle 之 appears between the possessor and the nominal region (76, 77). When only the demonstrative is present, no marking is present (78).

> **Box 2.19: Determiner region**
>
> Give a comprehensive list of determiners.

(76) 王之诸臣

(77) 马之死者

(78) [此心] 之所以合于王者

[1] In this note, when the term *nominal* is used as a noun, it refers to the determined region in NPs, while when it is used as an adjective, it refers to the status of being the head of a NP.

2.3.1 The nominal region

Pre-head attributives

> **Box 2.20: Pre-head attributive**
>
> Is the following paragraph right?
>
> An interesting feature of Classical Chinese is that adjectives before the head noun seem strongly discouraged. The meaning of, say, 'an ugly big old bear', is canonically expressed by several strategies. One is the 者 construction introduced below, which can be described as a relative clause construction (but with caveats) and seems to have no complexity constraints (80). Semantically non-restrictive attributives can always replaced by clausal coordination.
>
> Multiple adjectives are indeed possible.

The marker 者 and the relative clause construction The marker 者 looks like a relativizer. It is different from relativizers in many other languages in that further structural add-ons can be applied to the fused relative clause formed by it, while the fused relative clause constructions in many other languages are unable to undergo further modification. This seems to be the only productive way to form complex nominals (80).

(79) 马之千里者

(80) 若 [至力农畜，工虞商贾，为权利以成富，大者倾郡，中者倾县，下者倾乡里者]，不可胜数

> **Box 2.21: Relative clause complexity**
>
> Can a relative clause contain a NP that in turn contains a relative clause?

> **Box 2.22: *zhi-zhe* construction**
>
> The structure of the 之-者 construction may cause some debates. It can be analyzed as a possessive construction on top of a fused relative clause construction and translated word-to-word into English as '[those who go one thousand miles] of horses'. An interesting question then is whether we have any other appearances of the N 之 V 者 construction where the relation between N and [V 者] is prototypically possessive. It seems this is indeed possible: 城北徐公，齐国之美丽者也.
>
> Under this analysis, 楚人有吹箫于市者 is composed by applying the external possessive construction to 楚人之吹箫于市者
>
> One fact (or is it really a fact?) supporting the determinative analysis of 之-者 is the construction seems to be unable to receive a further determiner: * 此马之千里者. The sequence 此马之千里者 does appear but it is almost always a nominal predication construction.

> **Box 2.23: What can be relativized, and possible external possession**
>
> 若至 [力农畜，工虞商贾，为权利以成富，大者倾郡，中者倾县，下者倾乡里者]，不可胜数
>
> It seems what is relativized here is the subject of the bracketed clause. But then what's the role of 大者倾郡? If we consider it to be a coordinated clause, then it seems an argument is moved from only one branch of a coordination construction: a clear violation of the coordinate structure constraint of extraction!
>
> If we consider it to be a coordinated VP, then Classical Chinese should have a external

possession construction: [商人]$_{\text{subject}}$ [大者傾郡]$_{\text{predicate}}$, in which 大者 is a part of 商人.

Or maybe this is a clausal pseudo-coordination: *what did Alex go to the store and buy.*

2.3.2 Prepositions

In Old Chinese, there are only two prepositions: 于 and 於. The exact usages of the two prepositions are not clear. In *Zuo Zhuan*, 于 is reserved for prepositional complements (§ 2.2.3.1.2), while 於 is for inter-predicate focalization (TODO). Other Old Chinese works have different conventions.

It is possible to omit the object of a preposition.

(81) 孔子 [因 —]$_{\text{reason}}$ 叹

2.4 Parts of speech division

Having had an overview of grammatical constructions in Classical Chinese, we turn to analyze the structure of its lexicon. That is to say, we now study the parts of speech division in Classical Chinese in the second sense in § 2.1.

Classical Chinese has no inflectional morphology for content words so it is not possible to define parts of speech based on inflections. Content words show much flexibility in their distributions in various syntactic environments, sometimes without any formal indications. These facts lead some to claim that Classical Chinese is a language without clear part of speech distinctions, so although we can talk about the nominal or verbal usage of a root or a compound, strictly speaking we cannot talk about nouns or verbs, as there are no inherent lexical properties attached to roots that dictate their nominal or verbal usages. A more careful analysis, though, seems to reveal that at least some part of speech distinctions can be maintained in Classical Chinese, although Classical Chinese is much more tolerant to ad hoc re-categorization of roots than, say, English.

2.4.1 Nouns and verbs

A noun-verb distinction is supported by carefully examining traditionally called noun-used-as-verb phenomena (§ 4.2.1). If the lexicon of Classical Chinese contains *only* non-categorized roots, the interpretation of verbal usages of a word that usually appears in nominal environments should vary rather freely. What is actually attested however is not different from similar phenomena in other languages. In some cases, it seems a root is first categorized as a noun and then undergoes something similar to English *-ize* (albeit without any explicit marking), so only the nominal usage needs to be recorded as a lexical entry, but the lexicon controls whether a derivation step is viable. In other cases, both the nominal and verbal usages are to be recorded in the lexicon, as they cannot be inferred regularly from each other. In both cases, how a root is possibly categorized is stored in the lexicon, meaning that calling the nominal use of a root a *noun* and the verbal use of a root a *verb* is not problematic at all even in Classical Chinese. Sporadic ad hoc re-categorization of roots does exist, but this does not support the idea that part of speech division does not exist at all in the lexicon.

A terminological caveat is what appears as an argument is not necessarily a NP: it can be a complement clause. The main verb of a complement clause is not in a nominal position. Some may call complement clauses "nominal clauses", but this is misleading as the internal structure of a complement clause is not the same as that of a NP.

2.4.2 The adjective class

An adjective class can also be established in Classical Chinese, although its behavior is strongly verbal.

A caveat, similar to the caveat that an argument is not necessarily a NP, is that an attributive phrase is not always an adjective phrase. In existing modern studies, statements like "a verb used as an adjective" is usually avoided: wordings like "something is used as an attributive" are adopted instead.

> **Box 2.24: Traditional grammars**
>
> List some Classical Chinese grammars in which 动词作形容词 etc. never appear.

> **Box 2.25: A comprehensive list of Classical Chinese parts of speech**
>
> Noun, verb, adjective: any other content words?

Chapter 3

Phonology and the writing system

Box 3.1: On the writing system

- 隶定和简化: one keeps the structure of a character and only alters the components, another messes up the structure
- 谐声
- Syntax within the character?

3.1 Theoretical consequences

Now we discuss the cognitive status of the "grammar of characters" sketched above. Questions relevant to this topic include whether grammar-like rules governing the structure of Chinese characters are synchronic or historical, and if they are synchronic, whether they derive from human's language capacity or from some other cognitive capacities. We note that the latter question is ultimately related to the big questions in theoretical linguistics and cognitive science (see also discussions at the end of § 1.4): if the grammar of Chinese characters mimics the grammar of spoken natural languages but the network in the brain processing Chinese characters is completely independent of the language network, then what we thought were unique to languages probably are not domain-specific to languages at all.

Regarding the first question, neurolinguistic experiments suggest that both holistic and sub-lexical processing exist in human brain. The existence of holistic processing is supported by the fact that Chinese readers find it easier to tell completely different characters apart than to tell characters with shared components apart, while the existence of sub-lexical processing is supported by the fact that characters with valid semantic or phonetic components are possessed more quickly (Duan and Cai 2024, § 2.2). So literate Chinese speakers do have the components (subconsciously) in mind when reading Chinese characters. Yet the same can be said for all orthographic systems (Myers 2019, pp. 23-25). English orthography, for instance, has phonology-like rules like *-y* + suffix →*-i*-suffix (Myers 2019, p. 26).

What makes Chinese characters special is that

Chapter 4

Parts of speech

In this chapter we discuss parts of speech in Classical Chinese in detail. In principle, function words can be introduced together with their grammatical functions, but since the correct analyses of some constructions are still controversial and it may well be possible that the controversies reflect real historical linguistic divergence among speakers, function words are also included in this section for easier reference.

> **Box 4.1: Parts of speech, a chapter**
>
> This chapter depends on a list of POS (Box 2.25). The content:
>
> - Noun;
> - Verbs; the details about noun-used-as-verb can be placed here, as a source of verbs.
> - Look-up tables for particles

4.1 Nouns

The verbs 出 (‘go out’), 入 (‘enter’), 亡 (‘die, decay’) are regularly derived to 出 (‘what goes out’), 入 (‘what comes in’) and 亡 (‘what dies’). This derivation pattern however is not

> **Box 4.2: Deverbalization derivation**
>
> Summarize deverbal derivations.

4.2 Verbs

4.2.1 “Nouns used as verbs”

The conventional term in Mandarin Chinese 名词作动词 ‘nouns used as verbs’ covers two phenomena, corresponding to multiple functions and zero derivation (Dixon 2010, § 11.3), and also the rare case of ad hoc re-categorization of a root.

Multiple functions Some roots have both nominal and verbal uses, and there is usually some semantic connection between the interpretations of the two uses, but this is not regularly inferrable. Here we consider some examples in Yang, Kong, and Zhou (1991):

- 楚 may mean ‘the Chu state’ or ‘do what Chu people do’.
- 床 may mean ‘bed’ or ‘settle down your bed or sleep on a bed’.
- 城 may mean ‘city, castle’ or ‘build a city’.

The interpretation of the verbal usage is usually *not* decided from the meaning of the root and that the root is used in a verbal environment; rather, it is instructed by the lexicon. Therefore, the verbal usage of 城市 only means ‘build a city’ although the ‘do city-related things’ reading in principle could make sense.

Therefore, roots like 城, 楚 and 床 have double functions: nominal and verbal, but the two functions are likely not related to each other by regular grammatical rules. This corresponds to the “multiple function” case in Dixon (2010, § 11.3). Moreover, what is stored in the lexicon is not the bare, non-categorized root 城, but one noun lexeme 城 ‘city’ that specifies its nominal usage and one verb lexeme ‘build a city’ that specifies its verbal usage, and other seemingly possible ways to categorize the root, although attested elsewhere, are ruled out by their absence in the lexicon.

The boundary between roots with double functions and roots undergoing zero derivation (see below) is somehow blurry, as the nominal and verbal uses of 城 and 床 still seem to show a common pattern and may be understood as a rare derivation. This blurriness leads many grammatical works on Classical Chinese to simply refer to the two phenomena uniformly as “nouns used as verbs”.

Zero derivation In other cases the meaning of the verbal use of a root usually appearing in a nominal context is regularly derived from the nominal meaning. This is because although tropative or causative derivations in Classical Chinese are mainly verb-to-verb, they can also be applied to nouns. In this way from 臣 ‘servant, official, minister’ we have the causative verbal usage ‘make sb. dependent to’, and from 客 ‘guest’ we have the tropative usage ‘consider sb. as a guest’. These verbal usages are nothing different from noun-to-verb derivation observed in other languages, so we regard the relevant phenomena as zero derivation as in Dixon (2010, § 11.3).

In zero derivation, the meaning of the nominal usage has to be recorded in the lexicon, the meaning of the verbal usage can be automatically decided from the derivation rule. These derivations are however not completely regular and not for every word: the lexicon also controls whether a derivational rule applies.

Ad hoc re-categorization There are sporadic verbal usages of nouns that are almost never attested elsewhere, like 军 in 沛公军霸上. This means that ad hoc re-categorization of roots is possible in Classical Chinese, and the meaning is to be decided from the context. This is also possible in English (as in *I might [guinea pig] it for you.*) but usually not accepted in formal texts. Alleged ad hoc categorized Classical Chinese roots are indeed a possibility, after all, although their frequency is not high enough and cannot be exaggerated to be the norm rather than the exception.

4.3 Pronouns

> **Box 4.3: Third person pronouns**
>
> 之 seems to be the accusative pronoun in Old Chinese. 其 seems to be the genitive pronoun, and may be a phonological fusion of 之 and a possessive marker.
>
> See Mei, Guang.

4.4 Particles

Grammatical particles are not content words and in principle can be introduced together with the grammatical categories and relations they express. The long and complicated history evolution of Classical Chinese however means a particle may have multiple quite different uses possibly due to grammaticalization, so a surface form-to-function discussion on particles is of great descriptive value.

> **Box 4.4: Classification of particles**
>
> Do I need to classify particles?

者 The particle 者 most frequently appears as a relativizer, a complementizer, or in the *zhe-ye* construction. The three functions can be uniformly analyzed as the function of a low-level determiner (Aldridge 2009).

之 This

Chapter 5

Verb valency

Box 5.1: More topics on argument structure

- Morphology?

5.1 Simple argument structures

5.1.1 Prototypical DO

The subject of a DO clause usually has to be animate, because it voluntarily initiates the event described by the clause (1). The subject is an *agent*, as opposed to a *causer* (§ 5.2) or a *theme* (§ 5.1.2).

(1) 桓公杀公子纠

5.1.1.1 Unique properties of DO verbs

Mei (2015, p. 272) lists some criteria to distinguish a transitive DO verb from a transitive CAUSE verb (§ 5.2.1).

We note that certain CAUSE verbs may gradually develop a lexicalized meaning and eventually get reanalyzed as a DO verb (Mei 2015, pp. 269-271).

5.1.2 Prototypical BECOME and BE verbs

5.1.2.1 The intransitive usage

A BE verb describes a state; a BECOME verb describes the change of a state. In both types of argument structures, the sole argument is a *theme*: the situation happening to it just happens, and usually it does not have much control over it nor any volition to trigger it (Li 2004, p. 345; Mei 2015, p. 275).

In Classical Chinese, just like in other languages, BECOME/BE verbs often have established causative usages, forming CAUSE-BECOME/BE argument structures with the *causer* argument being the subject and the *theme* argument being internal (§ 5.2.1). When a causer is absent, the structure of the clause is comparable to what sometimes is known as the middle voice in English (e.g. *the door opened*; c.f. the transitive CAUSE-BECOME *I opened the door*). (2) is an instance: in its CAUSE-BE usage (10), the argument

that is described as weak is an internal argument appears after the verb, but in (2), the argument that is described as weak is the *subject*: the internal theme argument gets promoted to the subject position.

(2) 秦强而赵弱

The "middle voice" construction exemplified in (2) (known as 内动 in Mei (2015)) has a subject, which corresponds to the argument that is the object in the CAUSE-BECOME/BE construction (i.e. the internal argument). It is however possible (although rare) for the subject position to be unfilled, and the internal argument remains in-situ. For instance, the verb 鸣 'chirp' appears in "middle voice" clauses (3), but its sole argument can also stay *after* the verb (4). The structure of (4) can only be reasonably conceived if we assume that 鸣 is a BE verb, denoting a state where bugs continue to make noise, and that the sole argument 蜩 remains in-situ and is not promoted to the subject position. No other analysis is available: for instance a DO verb can never have such a behavior (Mei 2015, p. 351).

(3) 蝼蝈 鸣
? chirp
'??? chirp.' (礼记・月令)

(4) [五 月]$_{\text{temporal}}$ [鸣]$_{\text{predicate}}$ [蜩]$_{\text{internal argument}}$
five month chirp cicada
'In the fifth (lunar) month, cicadas chirp.'

5.1.2.2 The alternation between BE and BECOME

Alternation between BE and BECOME verb frames is natural. Some BECOME verbs however do not have BE counterparts.

5.1.3 Non-conventional BE/BECOME clauses

Some verbs license subjects that look like arguments of prototypical BECOME or BE verbs: the subject may be animate but it does not volitionally trigger the event. The situation "just happens to be the case", and the subject can be described as a *theme* and not an *agent*. What sets them apart from prototypical BECOME or BE verbs in § 5.1.2 is the fact that the subject seems quite unlike an internal argument. In (5), the subject 火 'fire' is definitely a theme and not an agent: the fire does not get to *decide* if it burns the flag (Mei 2015, p. 276). Still the clause is not a prototypical BECOME one as there is an internal argument 其旗 in it, and the theme 火 is an *external* theme (Mei 2015, p. 353). These verbs therefore have difficulties participating in synthetic causativization (§ 5.2.1).

(5) 火焚其旗

5.1.4 Experience verbs

Some experience verbs, mostly verbs about emotions, behave like BECOME verbs (Mei 2015, p. 273): when used as transitive verbs, the subject do not look quite agentative and the clause is likely causative (7), and when used as intransitive verbs, there is a clear internal change-of-state meaning (6).

(6) 孔子成春秋，而乱臣贼子惧 (孟子・滕文公章句下)

(7) 惧之以怒 (左传・昭公十三年)

On the other hand, perception verbs (e.g. 见 'look') and cognition verbs (e.g. 知 'know') are often transitive, and therefore are not compatible with the synthetic causative construction (§ 5.2.1; Mei 2015, p. 274). Intuitively, these verbs are DO-like according to the criteria listed in § 5.1.1. For instance, they can appear in 所 construction (8).

(8) 異乎吾所聞

Certain perception verbs however have developed a figurative, fossilized meaning, and when intransitivized, can participate in synthetic causativization (§ 5.2.1, 11). This possibility indicates that these fossilized usages are BECOME- or BE-like: 见 'meet formally' therefore means 'in the state of regularly meeting an important figure'.

5.2 Various causative constructions

A *causer* makes a situation to be the case, but does not always do so intentionally. It can therefore be inanimate, as opposed to how an *agent* behaves (§ 5.1.1).

We can divide causative constructions in Classical Chinese into synthetic and analytic ones. In the synthetic causative construction, there is only one verb in the surface form: the causative valency alternation is supposedly marked by a prefix **s-*, which is invisible in the written texts but is reflected by tonal changes of the verb. If a root develops a lexicalized usage in the synthetic causative construction, then CAUSE verb is formed.

5.2.1 Synthetic causative

The synthetic causative construction applies to existing argument structures, or sometimes bare roots. The synthetic causative construction cannot be applied to a DO construction: the reason is probably because a DO construction is too "big", already having a full-fledged wannabe subject (Mei 2015, p. 363-364). On the other hand, the syntactic causative construction can be applied to "passive" (9) and BECOME or BE (10) argument structures. Certain intransitivized experience verbs, possibly having an argument structure comparable to a BECOME/DO verb (§ 5.1.4) with a wannabe subject also have causative usages (11), but their transitive counterparts are never compatible with the synthetic causative construction (Mei 2015, p. 274). Finally, the synthetic causative construction can be directly applied to a root (12): the word 妻 'wife' is sometimes used as a verb, meaning 'to marry daughter to ...', inconsistent with the meaning of (12). Therefore, in (12), 妻 is ad hoc categorized into a CAUSE verb, its usual verbal usage being irrelevant here.

(9) 是 夭 子蛮， 杀 御叔……
this die.young NAME kill NAME
'This woman made Ziman die at a young age, and got Yushu killed...'

(10) 以 弱 天下 之 民
PURPOSE weak world GEN people
'...to weaken the people.'

(11) 子尾 见 疆
NAME formally.visit NAME
'Ziwei let Jiang formally visit (with Xuanzi).' (左传 • 昭公二年)

(12) 妻帝之二女

The labile S/O alternation between the BE/BECOME usage and the CAUSE-BE/BECOME usage is quite regular in Classical Chinese; verbs allowing this alternation are sometimes known as *ergative verbs* (Mei 2015, p. 378), although the phenomenon is about the core argument structure and has nothing to do with ergativity in alignment. It should be noted that not all BECOME/BE verbs are compatible with the synthetic causative construction. For instance, 鸣 'chirp' in (4) does not have a transitive CAUSE-BE usage. More examples are given in Mei (2015, p. 276). On the other hand, some clauses that look like CAUSE-BE/BECOME clauses actually do not have BE or BECOME counterparts (§ 5.2.2).

5.2.2 Fossilization of synthetic causative construction

Some CAUSE verbs are fossilized, and do not have clear intransitive counterparts. For instance, 伤 'hurt' typically is a state transition verb meaning body, etc. being hurt, and it also has a causative (i.e. CAUSE-BECOME) meaning ('make ...hurt'). The CAUSE-BECOME verb frame of 伤 however has gained a separate lexicalized specific that can't be transparently inferred from the meaning of the BECOME usage: it can mean 'let ...be demaged', in which the object is not necessarily body or a person. This usage of 伤 has no BECOME or other intransitive counterpart. The absence of a BECOME counterpart can be proven by the ability for this fossilized figurative usage of 伤 to undergo "passivization" (13), which is otherwise not possible (§ 5.3.1).

(13) 女红伤则寒之原也

Verbs like 伤 in like (13) can easily be reanalyzed as DO verbs. This is likely a diachronic path of the creation of DO verbs. The verb 败 for example seems to be originally a BECOME verb ('to get corrupted') and have later gained a specific meaning of 'to defeat' in its CAUSE-BECOME usage, which had eventually evolved into a DO usage (Mei 2015, p. 285).

5.2.3 Analytic causative

Classical Chinese has an analytic construction to express the causative meaning. In (14), the word 使 is applied to the stative structure 渚者居中原 'people living on small lanbds reside inland', meaning 'let people living on small lands in water live inland'.

(14) 不 使 [渚 者]$_{\text{shared object: NP}}$ [居]$_{\text{BE}}$ [中-原]$_{\text{locative object: NP}}$
NEG let small.land.in.water NMLZ reside middle-land
'...do not let people living on small lands in water live inland'

The word 使 can be replaced by 令 (15) or 俾 (16) (Mei 2015, p. 376). Note that in (15), 令 seems to applied to a DO argument structure.

(15) 令军勿敢犯

(16) 俾民不迷

A question is whether 使 is a lexical verb, or just a non-incorporated causative marker. The fact that (15) involves a DO verb deviates from the behavior of the synthetic causative construction, which is not compatible with DO verbs (§ 5.2.1). Further, the fact that we can choose among 使, 令 and 俾 is rather unusual for a grammatical marker: we also note that 使 retains the meaning of 'send sb. to do sth.' and 令 retains the meaning of 'command sb. to do sth.' Therefore, we consider 使, 令 and 俾 to be *lexical verbs*, and not grammaticalized causative markers.

5.3 "Passive" constructions

What is often known as the passive in Classical Chinese is not really a passive construction comparable to the English or Latin passive. The main problem is the lack of a grammaticalized way to say the agent: in a "true" passive construction, the original subject is somehow demoted (represented by the appearance of *by* in English or the ablative case in Latin) and sometimes omitted, and an internal argument is promoted to the subject position, while the so-called "passive" constructions in Classical Chinese are *obligatorily removed* (Mei 2015, p. 287-289).

5.3.1 The agent-less "passive"

It is rare to apply the "passive" construction to a causative construction (Mei 2015, p. 283). Suppose we have a bivalence causative construction, and we want to suppress the external argument and let the internal argument to be the subject. But such a bivalence causative construction usually has a CAUSE-BECOME structure, and removing the causer leaves us a clause that looks just like a BECOME clause. So there are two competing analyses, and since usually if a verb root is lexically licensed to head a CAUSE-BECOME clause, then its usage in a BECOME clause is also in the lexicon, the simpler BECOME analysis is preferred. However, where this preference is eliminated, "passivization" of a causative construction is possible (Mei 2015, pp. 284,370-372; § 5.2.2).

5.3.1.1 The case with multiple internal arguments

When the pseudo-passive construction is applied to double object clauses, it is the *recipient* that is promoted to the subject position (17) (Mei 2015, p. 421). On the other hand, when the pseudo-passive construction is applied to the corresponding prepositional argument construction, it is the *theme* that is promoted to the subject position (18). These phenomena establish a hierarchy of *externality* of arguments (§ 2.2.5.1.2).

(17) 诸侯，赐弓矢然后征

(18) 药言先献于贵，然后闻于卑

5.4 Experiential valency increasing

5.4.1 The affective constructions

Classical Chinese has two affective constructions, in which the subject is an experiencer suffering something bad from the situation described by the latter (Mei 2015,

pp. 354-358).

The first affective construction simply attaches an experiencer to an argument structure (19). In (19a), 亡 appears as a BECOME verb (§ 5.1.2): it is intransitive and its subject, the *Odes*, did not have control over its being ignored. In (19b), a new argument – the experiencer subject – is introduced to the argument structure of 亡: the meaning of the sentence is 'the shepherds suffered from the sheeps getting lost.'

(19) a. 亡 as a BECOME verb

[诗]$_{\text{subject,theme: NP}}$ [亡]$_{\text{BECOME}}$ 然后 春秋 作
poem **get.lost** then Spring-Autumn compose

'The *Odes* got lost, and then the *Spring and Autumn Annals* was composed.'

b. 亡 as a AFFECTIVE-BECOME verb

[二 人]$_{\text{subject: NP}}$ [相 与 牧 羊，而 俱
two person mutually go.together herd sheep CONJ all
[亡]$_{\text{AFFECTIVE-BECOME}}$ 其 羊]$_{\text{coordinated VP}}$
get.lost **POSS sheep**

'Two people herded their sheep together, and they both lost their sheep (lit. suffer from their sheep's missing).'

The second affective construction *obligatorily* has an object, which is in possession of the subject. The meaning of (20), for example, is that Confucius was frustrated by the fact that his tree was cut in Song.

The fact that the object (树 and 胁 here) should not contain any possessive markers and has to be interpreted as something being possessed by the subject suggests that the second affective construction is an external possession construction.

(20) 吾再逐於鲁，伐树於宋

(21) 范睢折胁於魏

Box 5.2: External possession

External possession as subject

5.4.2 Tropative

Tropative is a construction which attaches an experiencer to a BE argument structure, with the meaning being '*A* consider *B* to be ...' (Mei 2015, pp. 413-414) The Classical Chinese tropative is actually not limited to stative verbs: it also applies to nouns. It is however not likely that this construction comes from transformation of the nominal predicate construction (§ 2.2.1). The main difference is that in the nominal predicate construction, the predicate is a noun *phrase*, but the tropative construction never takes a nominal predicate as input.

5.5 Applicative constructions

Box 5.3: Applicative constructions

benefactive; the claim that double object constructions are similar to benefactive constructions; what object gets passivized. See Mei (2015, p. 421).

Chapter 6

Negation

Chapter 7

Discussions on quirky examples

(1) [良人者]$_{\text{subject}}$ [所仰望而终身]$_{\text{predicate}}$ 也

It seems subjects of ordinary verbal clauses cannot be topicalized (2), but if the VP is emphasized, topicalization is possible.

(2) a. 三王既以定法度
b. * 三王，既以定法度

(3) 秦，虎狼之国，不可信，不如毋行

References

Aldridge, Edith. “Generative approaches to ergativity”. In: *Language and Linguistics Compass* 2.5 (2008), pp. 966–995.

Aldridge, Edith. “Old Chinese determiner zhe”. In: *Historical syntax and linguistic theory* 18 (2009), pp. 233–250.

Boston, Marisa Ferrara, Hale, John T, and Kuhlmann, Marco. “Dependency structures derived from minimalist grammars”. In: *The mathematics of language*. Springer, 2009, pp. 1–12.

Bruening, Benjamin. “The lexicalist hypothesis: Both wrong and superfluous”. In: *Language* 94.1 (2018), pp. 1–42.

Danckaert, Lieven. “On the left periphery of Latin embedded clauses”. PhD thesis. Ghent University, 2011.

Deng, Siying (邓思颖). “汉语句类和语气的句法分析”. In: 汉语学报 1 (2010), pp. 59–63.

Dixon, Robert MW. *Basic linguistic theory volume 1: Methodology*. Vol. 1. OUP Oxford, 2009.

Dixon, Robert MW. *Basic linguistic theory volume 2: Grammatical topics*. Vol. 2. Oxford University Press on Demand, 2010.

Duan, Xufeng and Cai, Zhenguang G. “Chinese Character Processing”. In: *Oxford Research Encyclopedia of Linguistics*. 2024.

He, Leshi 何乐士. *Shǐjì yǔfǎ tèdiǎn yánjiū* 史记语法特点研究 *(A study on grammatical features of Historical Records)*. Shāngwù Yìnshūguǎn, 2005.

Huddleston, Rodney and Pullum, Geoffrey K. *The Cambridge Grammar of the English Language*. Cambridge University Press, 2002.

Jacques, Guillaume. *A grammar of Japhug*. Vol. 1. Language Science Press, 2021.

Keidan, Artemij. “Subjecthood in Pāṇini’ s grammatical tradition”. In: *Studi in onore di Giuliano Boccali* (2017), p. 107.

Kiparsky, Paul. “On the architecture of Pāṇini’s grammar”. In: *Sanskrit Computational Linguistics: First and Second International Symposia Rocquencourt, France, October 29-31, 2007 Providence, RI, USA, May 15-17, 2008 Revised Selected and Invited Papers*. Springer. 2009, pp. 33–94.

Li, Zuofeng (李佐丰). 古代汉语语法学. 商务印书馆, 2004.

List, Johann-Mattis et al. “Vowel purity and rhyme evidence in Old Chinese reconstruction”. In: *Lingua Sinica* 3 (2017), pp. 1–17.

Matthews, Peter Hugoe. *What Graeco-Roman grammar was about*. Oxford University Press, 2019.

Mei, Guang 梅广. *Shànggǔ hànyǔ yǔfǎ gāngyào 上古漢語語法綱要 (A sketch of Old Chinese grammar)*. Sānmín Shūjú 三民書局, 2015.

Myers, James. *The grammar of Chinese characters: Productive knowledge of formal patterns in an orthographic system*. Routledge, 2019.

Pan, Victor Junnan. "Sentence-final particles in Chinese". In: *Oxford research encyclopedia of linguistics. Oxford: Oxford University Press. Published online on* 28 (2021).

Paul, Waltraud. *New perspectives on Chinese syntax*. Vol. 271. Walter de Gruyter GmbH & Co KG, 2014.

Paul, Waltraud. "Why particles are not particular: Sentence-final particles in Chinese as heads of a split CP". In: *Studia linguistica* 68.1 (2014), pp. 77–115.

Pulleyblank, Edwin George. *Outline of classical Chinese grammar*. Ubc Press, 1995.

Yang, Zhaowei 杨昭蔚, Kong, Lingda 孔令达, and Zhou, Guoguang 周国光. *Gǔhànyǔ cílèi huóyòng cídiǎn 古汉语词类活用词典 (A dictionary of word class changes of Classical Chinese)*. 三环出版社, 1991.

Zhu, Dexi (朱德熙). "语法讲义". In: 朱德熙文集，第一卷. 商务印书馆, 2009.