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“All the aids which a beginner needs”: James Summers’ (1828-1891) research on Chinese grammar

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Chapter 5. Morphology

In this chapter, Summers' point of view regarding Chinese morphology is discussed, i.e., whether the concept of morphology is applicable to Chinese and, if so, what the morphological processes are. Additionally, Summers' innovation on this subject, compared to his contemporaries, is presented.

5.1 General introduction to Chinese morphology

Morphemes are the “smallest meaningful units” in a language and morphology can be seen as the study of how morphemes form words (Malmkjaer 1995, p. 422; Crystal 1997, p. 90; 2008, p. 314; Strazny 2005, p. 715). Some morphemes stand alone as syntactic words (i.e., free morphemes), whereas others need to combine with one another in order to form syntactic words (i.e., bound morphemes). Because, as I have discussed above, the “syntactic word” in Chinese is not easy to pin down, the distinction between these two types of morphemes is not always easy to make (cf. Chapter 4; Kratochvíl 1968, p. 61; Sun 2006, p. 46). Morphemes that do not form stand-alone words themselves can be further divided into roots and affixes. Words are formed by a single independent root, by a combination of roots, or by a combination of roots and affixes.

Inflection and word-formation are the two basic notions within morphology (Malmkjaer 1995, p. 426; Crystal 2008, p. 314). Inflection refers to agreement, conjugation, declension, and case marking, none of which is found in Chinese. Word formation is about the composition of words. In Chinese, the three major word-formation processes are discussed below.

5.1.1 Affixation

Affixes have to be used together with roots in order to form words. This process is called affixation. Affixes tend to be functional rather than lexical (Packard 2015, p. 267). They are generally productive (Dai 1992, p. 146; Packard 1997, p. 17; 2004, p. 73; Arcodia 2012, p. 98) and normally occupy fixed positions in words (Kratochvíl 1968, p. 60; Arcodia 2012, p. 98; Liao 2014, p. 8), for instance, *zi* 子 as a nominal suffix in nouns such as *xiāngzi* 箱子 ‘box’. In Chinese it is not easy to distinguish between affixes and roots. For example, *rén* 人 ‘man, -er’ in *Běijīngrén* 北京人 ‘Pekingese’ is quite productive and occupies a rather fixed position in words. It can be treated as the equivalent to *-er* in English to denote an actor or stakeholder, some kind of people in a functional or grammatical way, in which case, it could be analysed as

an affix: ‘Beijing-er’. However, *Běijīngrén* can also be analysed as a compound, ‘Beijing-person’, in which case *rén* would be a root (Arcodia 2012, p. 22; with Basciano 2017, p. 111).

Affixes can be divided into different types. For example, some of them help to form new lexemes and change the word class of the roots. They are normally called derivational affixes. Some of them only add grammatical meaning to roots without changing the word class of the roots or creating new lexemes. They are called inflectional affixes nowadays (Malmkjaer 1995, p. 428; Packard 1997, p. 17; 2004, pp. 70–71; 2015, p. 267, p. 270; Liao 2014, pp. 3–4). Affixes can also be classified as prefixes, suffixes and so on according to their position in words.

5.1.2 Compounding

Two or more roots can form a compound.¹³⁷ Compounds can be analysed according to various relations between their components. The components in a compound can be described by their “parts of speech” or form-class-identity (Packard 2004, p. 32; Pān Wénguó et al. 2004, pp. 29–34). For example, the noun *báicài* 白菜 ‘Chinese cabbage’ can be viewed as formed by an adjective component *bái* 白 ‘white’ and a nominal element *cài* 菜 ‘vegetable’. A compound can also be described by the “syntactic” relationship between its components (Kratochvíl 1968, pp. 73–76; Packard 2004, p. 27; Pān Wénguó et al. 2004, p. 35; Liao 2014, p. 9). For example, *dìzhèn* 地震 ‘earthquake’ can be viewed as a subject-predicate compound with the “subject” *dì* 地 ‘earth’ and its “predicate” *zhèn* 震 ‘shake’; returning to the previous example, *báicài* 白菜 ‘Chinese cabbage’ could be seen as a modifier-head compound with the “attributive” *bái* 白 ‘white’ and the “head” *cài* 菜 ‘vegetable’. Furthermore, a compound can also be described by the semantic meaning of its components (Packard 2004, p. 25). For example, two morphemes with the same or similar meaning can form a compound, such as the two morphemes of the compound *péngyou* 朋友 ‘friend’ convey the following meaning respectively: “those who have the same teacher are called *péng* and those who share the same ideal are called *yǒu*”.¹³⁸ Therefore, the compound *péngyou* ‘people from the same school → like-minded people → friend’ is formed by two morphemes, which share a similar meaning.

¹³⁷ Dǒng Xiùfāng (2004, p. 41), Liao (2014, p. 9), Arcodia and Basciano (2017, p. 108) and others argued that both free and bound roots can form compounds in Chinese. However, Packard (2004, p. 78) stated that “true compounds” are only formed by free roots, i.e., words.

¹³⁸ The original text reads: “同門為朋，同志為友”，which appears in the annotations of *The Book of Change* by Zhèng Xuán, quoted from *Chóng kān Sòng běn shísān jīng zhùshù fù jiàokān jì* (重刊宋本十三經註疏附校勘記 *Republishing the Commentaries on the Thirteen Classics of the Song Dynasty with Collation Notes*, 1815, 93–1, see: <http://hanji.sinica.edu.tw/>, Date of access: 18 November 2022).

5.1.3 Reduplication

Reduplication is another common word-formation process, which generally applies to syllables or morphemes (Arcodia and Basciano 2017, p. 111). Reduplication either intensifies or attenuates the meaning of the original morphemes in Chinese. The former function mainly affects nouns, adjectives used attributively, and classifiers, whereas the latter affects verbs and adjectives used predicatively¹³⁹ (Arcodia and Basciano 2017, pp. 111–113). Reduplication is, therefore, not applicable to all morphemes in Chinese.

Besides the relatively common word-formation processes, in Chinese, especially in Old Chinese, it is generally agreed that a change of tone is able to form a new word. For example, when 好 (*hǎo* in modern Mandarin) ‘good’ is read in a ‘going tone’, it changes into a verb, which means ‘to love’ (Packard 1997, pp. 2–3). This process still exists in some varieties of the Chinese language (Arcodia and Basciano 2017, p. 105).

5.2 James Summers and Chinese morphology

In Summers’ works, “word-building” (1863a, p. xiii; 1864a, p. 42, p. 43) and “the formation of words” (1863a, p. xiii) are employed to refer to what we call “morphology” today. He also used the terms “formation of nouns”¹⁴⁰ and “formation of adjectives”¹⁴¹ in his works.

5.2.1 Does Chinese have morphology?

Summers is of the opinion that Chinese words are formed according to a set of complicated rules. He said: “this process [of the formation of words] [...] does exist [...]. This part of Chinese grammar is vast in extent, and many years of discriminating study will be required to exhaust it” (1863a, p. xiii).¹⁴² However, for Summers, Chinese words do not have inflections, and the grammatical meaning expressed by inflections in the western languages is expressed at the level of syntax in Chinese:

¹³⁹ For example, in sentence *Jīntiān zánmen gāoxìnggāoxìng* 今天咱們高興高興 (lit. ‘Today we happy’, ‘Let’s have some fun today’), the reduplication of adjective *gāoxìnggāoxìng* serves as the predicate and the meaning of the adjective is attenuated. However, normally, the pattern of reduplication of disyllabic adjectives in Mandarin is AABB (e.g., *gāogāoxìngxìng* 高高興興 lit. ‘happy happy’, ‘very happy’) and the meaning of the original *gāoxìng* is intensified when reduplicated in this pattern.

¹⁴⁰ For example, 1863a (p. 42, heading).

¹⁴¹ For example, 1863a (p. 55, heading).

¹⁴² The precondition for this statement is that not all words in Chinese are monosyllabic in Summers’ view (cf. Chapter 4).

- a. [T]hey employ no inflexions to show the mutual relations of words.
(1864a, p. 5)¹⁴³
- b. Relations which, in some languages indeed, are regulated by the inflections of the words themselves, but in Chinese, and in some other languages, they are shown by the relative position of the words and clauses. (1863a, p. 180)

Although Summers noted previously that “the distinctions of *case*, *number*, *person*, *tense*, *mood*, &c., are unknown to natives of China” (1863a, p. 40), he employed these terms in his analysis of Chinese grammar. For example, he wrote: “[t]he distinction of gender and number are made in a similar way by prefixes or suffixes: - *nân* 男 ‘male’ and *nǚ* 女 ‘female’ are prefixed to *jīn* [人] ‘man’ to express the gender” (1863a, p. 52). This is consistent with his didactic intention to compile Chinese grammar in an easy and familiar way for western students.

Summers classified Chinese words into three categories, i.e., primitive words, derivative words and composite words/compounds according to their structure. Primitives are also called “simple [words]” (Summers 1863a, p. 69), which refer to “monosyllables bearing their primitive signification”, for example, nouns like *fàn* 飯 ‘rice’ and adjectives like *hǎo* 好 ‘good’ (1863a, p. 41, p. 55). Which part of speech primitives belong to is sometimes flexible. “Some primitive nouns may be used as verbs” (1863a, p. 42), but primitive adjectives “are used exclusively as adjectives, and are but seldom employed in the other grammatical relations” (1863a, p. 55). Summers noted that primitives are not very commonly used in colloquial Chinese compared to literary Chinese (1863a, p. 69, p. 84, p. 41). This reflects the abovementioned idea of Summers, i.e., that literary Chinese is monosyllabic at the level of the word (see Chapter 4).

Summers’ opinion of the other two types, namely derivatives and compounds, is presented in Sections 5.2.2 and 5.2.3. Summers focused on the morphology of nouns, adjectives, verbs, and adverbs. The following sections only take these four parts of speech into account. For the other parts of speech (for example, pronouns), morphology is not mentioned by Summers.

¹⁴³ For more, see 1853a (p. 26) and 1863a (p. 40, p. 97, p. xx).

5.2.2 Affixation

Several relevant term-like words are employed by Summers concerning the affixation of words, namely “formative”¹⁴⁴, “root”, “stem”, “affix”, “prefix” and “suffix”. This section analyses Summers’ ideas on affixation, starting from the explanation of these words.

5.2.2.1 “Formative”

Formatives are “syllables”, which are used to “strengthen the original notion conveyed by the prime syllable[s]” (Summers 1863a, p. 40), “give nominal [, adjective, adverbial] and verbal forms to the words they thus affect” (1863a, p. 14) and “take the place of terminations” (1863a, p. 14).¹⁴⁵ They themselves normally do not convey lexical meaning, but rather functional meaning:

- a. Nouns, verbs, and particles are formed by the juxta-position and cohesion of syllables, all of which are sometimes significant. Sometimes one of the syllables is merely *formative*, like *er* in *butcher*, *ed* in *wounded*, *ing* in *singing*, or *ly* in *truly*. (1864a, p. 7)
- b. [They] denote the *agent*, an *object*; - the *completion* or the *expansion* of the idea conveyed by the word to which they are joined. (1863a, pp. 40–41)

But, he argued, “[some] are purely *formative* in character, and produce nouns or verbs, adverbs or adjectives, as conventional usage has determined” (1863a, p. 41). Thus, the following conclusions about “formatives” can be drawn.

Firstly, his term “formative” is close to what we call “derivational affix” today. According to Summers, formatives “give nominal and verbal forms”, i.e., they may change the word class of the root, or at least mark the word class of the entire word. He wrote in the *Rudiments*: “[n]ouns may be distinguished by their form when certain *formative particles* are presented as affixes” (1853a, p. 42). Summers listed some formatives that do not change the word class of the root, for example: “*âr* 兒 ‘a child;’ [nominal suffix] as *mîng-âr* [名兒] ‘a name’” (1864a, p. 46). There are also formatives that change the word class of the root. Summers noted one of them in his work *Gospel*, which concerns Shanghainese:

In the local dialects of China, especially that of Shanghai, this is clearly seen, the verb and the noun taking each its distinct form. A noun is not

¹⁴⁴ Also called “formative particle”, cf. 1863a (p. 54, p. 84).

¹⁴⁵ “Termination” is a term that is rarely used and is not defined by Summers.

transformed into a verb without its proper change of form by suffix [...].

And in like manner the verb does not take the form of the verbal noun, except by the addition of a formative particle; e.g. wō, “to say,” forms wō -dā, “a word.” (1863b, Introduction, p. vi)

Secondly, a “prime syllable” refers to the root, which conveys the essential meaning of the entire derivative word. A pure formative, Summers argued, does not convey any lexical meaning. However, some formatives also convey some general notions, in other words, “agents”, that “strengthen” (1863a, p. 55) the meaning or “force” conveyed by the roots (cf. 2.2.2).

5.2.2.1.1 Nominal, adjectival and adverbial formatives¹⁴⁶

In the *Handbook*, nominal formatives are classified into different types according to the semantic meaning they express: agent,¹⁴⁷ class and gender,¹⁴⁸ shape, form and combination

¹⁴⁶ “Derivative verbs” will be discussed in Section 5.2.5. English translations of Chinese elements in this section are cited from Summers, while the ones within square brackets are added by me.

¹⁴⁷ Formatives, which “generally indicate a person or agent” are “like the words *man*, *boy*, in *herdsman*, [...] *errand-boy*” in English (1863a, p. 42). Summers listed the following formatives with the nouns they thus formed, for example: *shǒu* 手 ‘hand’ in *shuǐshǒu* 水手 ‘water-hand → sailor’, *rén* 人 ‘man’ in *gōngrén* 工人 ‘[work-man] → workman’, *jiàng* 匠 ‘workman’ in *mùjiàng* 木匠 ‘[wood-workman] → carpenter’, *gōng* 工 ‘artisan’ in *huàgōng* 畫工 ‘[painting-artisan] → painter’, *fū* 夫 ‘fellow’ in *mǎfū* 馬夫 ‘[horse-fellow] → groom’, *jiā* 家 ‘family, [nominal suffix]’ in *chuánjiā* 船家 ‘[ship-nominal suffix] → ship-owner’, *zǐ* 子 ‘son, [nominal suffix]’ in *tiānzǐ* 天子 ‘the son of the heaven → the emperor’, *chúzi* 廚子 ‘[cook- nominal suffix] → a cook’ and *ér* 兒 ‘child, [nominal suffix]’ in *nǚér* 女兒 ‘[female- nominal suffix] → girl’ and *huàr* 話兒 ‘[speech- nominal suffix] → word’ (1863a, pp. 42–43). The last two formatives are special, since “they frequently help to form names of things, and often form diminutives” (1863a, p. 43). Besides these “names of agents”, Summers also wrote that the expression *shīfu* 師傅 ‘a teacher’ in *títóu shīfu* 剃頭師傅 ‘head-shaving teacher → barber’ and the verb *zuò* 作 ‘make’ in *shuǐzuò* 水作 ‘water-make → a confectioner or baker’ are “used to form nouns” as well (1863a, p. 50). He did not put these two together with the other formatives, probably because they are not a single syllable or not a nominal formative.

For the formative *jiā*, Summers gave different types of examples of the words formed by *jiā*, including those in which *jiā* does denote the meaning of ‘family’, such as *běnjiā* 本家 ‘own-family → a clansman’, those in which *jiā* denote ‘school’, for example *dàojiā* 道家 ‘the Taoists’ [sic], and those in which *jiā* do not convey concrete meaning, such as *chuánjiā* 船家 ‘ship-[nominal suffix] → ship-owners’ (1863a, p. 44). The first type may not fall in the scope of “formatives”, but they are still listed by Summers.

With regard to diminutives, Summers further explained that besides adding these two formatives to the roots, “[d]iminutives are formed by means of certain words, signifying *little*, *small*, prefixed; [*xiǎoyáng* 小羊] ‘small sheep’ = a *lamb*, [*xiǎomǎ* 小馬] ‘small-horse,’ = a *colt*” (1863a, p. 52).

¹⁴⁸ Formatives that denote classes, including social position and gender, are *hù* 戶 ‘householder’ in *pínhù* 貧戶 ‘poor-household → the poor’, *shēng* 生 ‘born, [nominal suffix]’ in *xiānsheng* 先生 ‘the one who gets to know something earlier → teacher’, *dì* 帝 ‘a ruler, a prince’ in *huángdì* 皇帝 ‘ruler-ruler → emperor’, *nǚ* 女 ‘woman’ in *chúnǚ* 處女 ‘live at home-woman → a young lady not yet introduced to society’, *shī* 師 ‘teacher’ in *cháshī* 茶師 ‘tea-teacher → tea-inspector’, *zhǔ* 主 ‘lord’ in *diànzhǔ* 店主 ‘shop-lord → shopkeeper’, *shǒu* 首 ‘head, chief’ in *chuánshǒu* 船首 ‘ship-head → captain (of a ship)’ (1863a, p. 44).

(1863a, p. 42),¹⁴⁹ objects¹⁵⁰ and localities¹⁵¹ (1863a, p. 45).¹⁵² However, in his *Rudiments*, nominal formatives are not classified into these types, but simply listed according to their frequency of appearance (p. 46).¹⁵³ This is due to the stronger didactic focus of the *Rudiments*.

In the class of derivative nouns, Summers singled out a type of word, which is formed by an “active verb and its object with the addition of the genitive particle *de* 的, which throws the whole into the form of a participial expression”, for example: *zuòshēngyide* 做生意的 ‘make trade (person) → tradesman’ and *jiāoshūde* 教書的 ‘one who teaches book-lore → teacher’ (1863a, p. 45). These expressions are nouns for Summers. “[T]hey are not often used in the presence of the individual whose calling or character they signify” (1863a, p. 45), i.e., there is no need to say *jiāoshūde rén* 教書的人 ‘the teaching person’, *jiāoshūde* itself is enough.¹⁵⁴ For Summers, *de* is used as a nominal formative here, which changes the “verb and object” expression into a noun, to indicate the agent of the action.

¹⁴⁹ Considering the formatives that denote “shape and form”, Summers paid special attention to those that express “round shape or all in a piece, and places”, for example, *tou* 頭 ‘head, [nominal suffix]’ in *yātou* 丫頭 ‘girl-[nominal suffix] → a servant-girl’, *duìtou* 對頭 ‘antithesis-[nominal suffix] → an enemy’, *fàntou* 飯頭 ‘meal-[nominal suffix] → a cook’, *shétou* 舌頭 ‘tongue-[nominal suffix] → the tongue’ and *ritou* 日頭 ‘sun-[nominal suffix] → the sun’ (1863a, pp. 43–44). In all these examples, only the last one has a round shape. Other formatives “which relate to objects of various forms and combinations: e.g., 塊 *kwei* ‘a lump’, 子 *tsz* ‘child’” (1863a, p. 42) are without any examples of words, which they form.

¹⁵⁰ Formatives which denote “general objects” are such as: *zi* 子 ‘child, [nominal suffix]’ in *dāozi* 刀子 ‘knife-[nominal suffix] → knife’, *jīnzi* 金子 ‘gold-[nominal suffix] → gold’, *rìzi* 日子 ‘day-[nominal suffix] → day’ and *dīngzi* 釘子 ‘nail-[nominal suffix] → nail’ and *ér* 兒 ‘child-[nominal suffix]’ in *mér* 門兒 ‘door, [nominal suffix] → door’ and *huàr* 話兒 ‘speech-[nominal suffix] → word’, *tou* 頭 ‘head, [nominal suffix]’ in *shétou* 舌頭 ‘tongue-[nominal suffix] → tongue’ and *mùtou* 木頭 ‘wood-[nominal suffix] → a piece of wood’ (1863a, p. 45).

¹⁵¹ This type is *tóu* 頭 ‘head’, *kǒu* 口 ‘mouth’ and *mén* 門 ‘door’ as formatives for designations of places, for example, *shāntóu* 山頭 ‘mountain-head → a mountain-top’, *lùkǒu* 路口 ‘road-mouth → a thoroughfare’ and *yámen* 衙門 ‘authorities-door → magistrate’s office’ (1863a, pp. 45–46). Some of them are mentioned in other types, for example, *tóu* is also a formative denoting “shape”. But when it is counted as a member of formatives of localities, *tóu* expresses a different meaning, according to Summers.

¹⁵² Another formative mentioned by Summers is *men* 們, “the common mandarin particle for ‘all’, it may be looked upon as a formative particle” (1863a, p. 54).

¹⁵³ The following formatives in the *Rudiments* are not presented in the *Handbook*: *qì* 氣 ‘breath, feeling’ in *nùqì* 怒氣 ‘angry-feeling → anger’, *fēng* 風 ‘wind, air, manner’ in *wēifēng* 威風 ‘prestige-manner → dignity’, *xìng* 性 ‘nature, disposition, faculty’ in *jìxìng* 記性 ‘memory- nature → memory’ (1864a, p. 48). In *Handbook*, they are considered as a means of forming abstract nouns, which are placed right after the analysis of compound nouns, together with *xīn* 心 ‘heart’ in *xiǎoxīn* 小心 ‘small-heart → attention’ (1863a, p. 51). However, in the following paragraph, Summers wrote: “[o]ther abstract nouns are formed upon the same principle as those noticed in the foregoing articles; viz., (1) by uniting synonyms, (2) by placing one noun in the genitive case before another” (1863a, p. 52). In fact, words that are formed by these two methods are considered to be compound nouns according to Summers. Therefore, words formed by units like *qì* are considered to be different from compound nouns. *Qì*, *fēng*, *xìng* and *xīn* are also formatives in Summers’ point of view in the *Handbook*.

¹⁵⁴ Summers gave two examples that are not “of an active verb and its objects” with *de*, namely, adjectives *cōngmíngde* 聰明的 ‘clear-bright (person),’ ‘an intelligent person’ and *nénggànde* 能幹的 ‘able to transact affairs,’ ‘an able man’ (1863a, p. 45). They do not fit in the context, but belong to “derivative adjectives” (see below).

For derivative adverbs, Summers only mentioned that they are formed by adding any of the formatives *rú* 如 ‘as’, *yǐ* 以 ‘to use,’ or *rán* 然 ‘yes’¹⁵⁵ to the roots. But he only gave examples of derivative adverbs formed by *rán*, not the other two,¹⁵⁶ for example, *hūrán* 忽然 ‘suddenly’, *guǒrán* 果然 ‘certainly’, *duànrán* 斷然 ‘decidedly’ and *zhérán* 輒然 ‘immediately’ (1863a, p. 84).

Summers’ ideas about derivative adjectives call for further discussion. Summers stated that “[some syllables] require the genitive particle to form them into attributives, and may be considered as *derivatives*” (1863a, p. 55). The function of the “common formative particles” is “to strengthen the attributive force of the adjective” (1863a, p. 55). These formatives are “*tǐ* 的 [*de* in *pinyin*] in the mandarin and *chī* 之 [*zhī* in *pinyin*] in the books” (1863a, p. 55). The examples of the derivative adjectives are *fùguìde* 富貴的 ‘rich’ in *fùguìde rén* 富貴的人 ‘rich man’ and *lìhàide* 利害的 ‘hurtful’ in *lìhàide rén* 利害的人 ‘a fierce, bad person’¹⁵⁷ (1863a, p. 55). In Summers’ opinion, as long as an attributive expression is added with *de* to modify nouns, it is a “derivative adjective”, no matter if the rest of the expression without *de* is a primitive or compound; whereas composite adjectives are “formed by the union of two or more syllables” (1863a, p. 55) without *de*. In his works, Summers did not give any example of derivative adjectives formed with *zhī*.¹⁵⁸

5.2.2.1.2 The complexity of the concept “formative”

Some clues about the complexity of the “formatives” can be found in Summers’ works. The line between “formative” and “root” is not clear-cut. For example, the characteristic of the nominative formatives for the type that denotes “class” is that “some of these may perhaps be considered to be in apposition to their prime syllables” (Summers 1863a, p. 44); in other words, we are dealing with a compound, since “appositional relation” is one of the relations between components within a compound word, according to Summers (see 5.2.3). This shows that for Summers these elements have similarities with both formatives and roots, and that they themselves also convey some meaning as other “prime syllables” in the words. The specific

¹⁵⁵ *Rán* does have the meaning of “yes”, while in this case, it conveys the meaning of “so” or “this way”.

¹⁵⁶ According to Summers’ translation, the other two formatives normally do not serve as the suffix in a word, such as *rú* in *rúcǐ* (如此 ‘like this’) and *yǐ* in *yǐlín wéihè* (以鄰為壑 ‘use the neighbor’s place as the drain, beggarthy-neighbor’).

¹⁵⁷ These are Summers’ own translations.

¹⁵⁸ Only once did he claim that “*shén-jīn* 善人 ‘a virtuous man’” is correct, while “*shén-chī-jīn* 善之人” is not, probably “for the sake of the rhythm” (1863a, p. 109).

example he referred to here is *huángdì* 皇帝 ‘ruler-ruler → emperor’, because *huáng* and *dì* are synonyms. The relation of these components of words are appositional for Summers, which is discussed in 5.2.3.

On top of that, as found in Summers’ *Handbook*, the same formatives are classified under multiple categories and certain nouns can be formed by different types of formatives. For example, *hù* 戶 ‘householder, a house-door’ belongs both to “agent” formatives and to “class” formatives (1863a, p. 42, p. 44),¹⁵⁹ while *huà* ‘a word’ is formed by both “agent” and “object” formative *ér* (p. 43, p. 45). It is consistent with Summers’ claim that the meaning that formatives denote is rather unspecific.

Overall, for Summers, formatives are morphemes that mark or change the part of speech of a word. They frequently appear as suffixes and are not the root of the word that they help to form. The difference between “formative” and “root” is gradual, leading to different levels of “purity” of formatives: the archetype of formatives does not convey any meaning. As a result, those formatives which denote some general or functional meaning are less pure, but in general, formatives are functional instead of lexical in the sense that they denote grammatical notions such as the “agent” for nouns and for adjectives, the formatives *de* and *zhī* strengthen the attributive force. The so-called “derivative words” are formed by roots and formatives.

5.2.2.2 “Root”

The term “root” appears several times in Summers’ works. To him, a “root” is a single word, i.e., a “primitive” in Summers’ own words, to which formatives are added (1864a, p. 46), for example, *xiāng* 箱 ‘box’ in *xiāngzi* 箱子 ‘box’ (1864a, p. 46). Summers applied “root” not only to analyse how words are formed, but also to study the etymology of words. In his *Lecture* he used it to refer to the “historical basic form of a word” (Bussmann 1996, p. 1013): “[t]he roots of most languages are found to be monosyllabic” (1853a, p. 7). This statement is almost identical to his description of “stem”: “the stems in all languages are monosyllables in the same way” (1863a, p. 69). This is the only time when Summers mentioned “stem”. His description resembles one of the modern meanings of the term “stem”, namely the base morpheme “that underlies all words of the same word family and that is the carrier of the (original) lexical base meaning” (Bussmann 1996, p. 1121). In this sense, “root” and “stem” share the same meaning for Summers.

¹⁵⁹ The formatives that denote the “general objects” (1863a, p. 45) are all repeated under the type of “agent” and “class and gender” (1863a, p. 42).

5.2.2.3 “Affix”, “prefix” and “suffix”

In Summers’ works, “affix” (1863a, p. 80, p. 136, p. 144), “prefix” (1863a, p. 12, p. 47, p. 52), and “suffix” (1863a, p. 52, p. 53, p. 56) are mostly used as verbs. For example, he stated: “[t]he following particles and auxiliary words affixed to the verb also show that some tense of the potential mood will be required” (1863a, p. 80).

To Summers, there is a difference between “affix” and “formative”: “affix” may refer to function words. For example: “*lā* or *ā* 呀 (suff.) marks the *vocative*; *ts’ûng*, 從 (pref.), ‘to follow, -from’, while *lai*, 來 (suffix) ‘to come’, marks the *ablative*; e.g. *ts’ûng Peking lai* [從北京來], ‘from Peking’” (1864a, p. 57). The “affix” concerns not only morphology, but also syntax, whereas “formative” only refers to the word-forming affixes, which holds the function of an indicator of certain parts of speech. In all his works, when Summers analyses “derivative words”, he always means the words that are formed by adding certain formatives, not any other kind of “affixes”.

5.2.3 Compounds

“Compounds” (Summers 1863a, p. 55, p. 69, p. 84), which Summers also called “composite” words (1863a, p. 41, p. 45; 1864a, p. 53), are “formed by the union of two or three syllables, each preserving its individual signification” (1863a, p. 46), and their constituents bear certain relationships to each other (1863a, p. 41). Summers analysed the components of compounds mainly from the perspective of their semantic and “syntactic” relationship, with the assistance of the description of their “parts of speech”. For instance:

- a. [W]ords of opposite meaning are united to form the general or abstract term implied by each other, e.g. [...] *tō-shau* 多少 ‘many, few-quantity, or how many?’ (1863a, p. 13)
- b. The genitival relation, when the former of the two may be construed as if in the genitive case. (1863a, p. 41)

The first quotation describes the relationships between components of the composite words from a semantic perspective, and the second from a grammatical perspective. In his more detailed description of word structures, Summers also analysed their “part of speech”. For example, when discussing how synonymic verbal elements form nouns, Summers wrote: “[t]wo verbs are sometimes united to form nouns: e.g.- *hîng-weî* 行為 ‘actions,’ both verbs

meaning *to do* (synonymes)” and “[t]wo adjectives are united to form nouns” e.g.- [...] *yiū-mún* 憂悶 ‘sad-sorrowful - sorrow’ (1863a, pp. 46–47).

In general, Summers stated that the constituents of Chinese compounds are in the following two relations: first, they may be appositional in relation. An appositional relationship is explained as “words, identical or cognate in meaning, placed together and explanatory of each other [to form a new word]” (1863a, p. 46). The detailed relation of the components in this relation can be further divided into repetition, synonyms and so on (1863a, pp. 46–47; 1864a, p. 49). Second, the components may also be “in construction, viz. as subject and verb, as adjective and substantive, or as attributive genitive and the word which it qualifies” (1863a, p. 85). He focused on composite nouns, verbs, adjectives and adverbs, which will be discussed in the following sections.

5.2.3.1 “Repetition”

What is now known as “reduplication” (Summers 1863a, p. 53) was normally called “repetition” by Summers, which means “simply *repetitions* of the same word [... for example] *t’ai- t’ai* 太太 ‘aged lady,’ used in addressing or speaking of a mandarin’s lady [...] *kō-kō* 哥哥 ‘elder brother, -Sir’ in speaking to one of inferior rank” (Summers 1863a, p. 46) and “*k’ān-k’ān* 看看 lit. ‘look-look,’ i.e. look!” (1863a, p. 70). Summers argued that repetition is a process of forming compounds (1864a, p. 49; 1863a, pp. 46–47), and the function of repetition is:

- a. [It] has the effect of intensifying the meaning of the single syllable, and gives the notion of a *good* many, often *all*, *every*, to the single noun. [...] These repetitions must be construed according to the sense of the passage, sometimes as nouns, sometimes as adverbs, and sometimes as expressions of plurality, and very often as the imitation of natural sounds. [...for example:] *yiū wán-wán* 遊玩玩 ‘to roam for pleasure’. *mwán-t’iēn tū shí* *sīng-sīng* 滿天都是星星 ‘the whole sky is starry’. *siaú hǎ-hǎ tǐ* 笑哈哈的 ‘laughing with a Ha! ha!’”. (1863a, pp. 102–103)
- b. Repetition has already been referred to as being a common method of forming words and phrases and for intensifying adjectives and adverbs [...], but it is often merely for the sake of the rhythm that words and syllables are repeated. A few select expressions of this kind may be seen in Appendix I. (1863a, p. 189)

However, in Appendix I, Summers did not point out which examples are used “merely for the sake of the rhythm”. Most of the examples have the effect of “intensifying”, for example, *āiāi* 哀哀 ‘Oh! Oh!, bitterly’¹⁶⁰ in *āiāi tòngkū* 哀哀慟哭 ‘to weep bitterly’ and *yíbùbù* 一步步 ‘step by step’ in *yíbùbù mōshàngshānlai* 一步步摸上山來 ‘step by step, feeling his way, he ascended the mountain’ (1863a, pp. 196–197). Therefore, for Summers, the main effect of repetition is to intensify the meaning of the original morphemes (or in his words, “words”).

Nouns, adjectives, verbs, adverbs and onomatopoeias can be reduplicated, according to Summers, with a focus on the first four. To Summers, nouns are reduplicated to denote the meaning of “all” or “every”. It is a way to express “plurality” or with “a distributive force”, for example, *rìrì* 日日 ‘every day, daily’ and *tí‘āu-tí‘āu* 條條 ‘each article’ (1863a, p. 53, p. 62; 1864a, p. 55). In Summers’ works, adjectives are “sometimes doubled to intensify the meaning”, for example *jīngxìde* 精細的 ‘fine-small, fine’ becomes *jīngjīngxìde* 精精細的 ‘very elegant’, and *wényǎde* 文雅的 ‘letters-elegant, of literary elegance’ turns into *wényǎyǎde* 文雅雅的 ‘of a very fine style of composition’ (1863a, p. 56). Two patterns of the reduplication of adjectives are presented here: AAB and ABB. (The former is not actually grammatically correct in Mandarin, see Section 5.4). Another special feature of reduplicated adjectives is that they can form “an adverb of manner frequently”, just like the “repetition of the adverb”, for example, *píngpíng‘ān‘ān* 平平安安 ‘peacefully, comfortably’ (1863a, p. 87). For reduplicated verbs, Summers claimed that the process expresses “repetition or continuation of an action”, for example, *mómo* 磨磨 ‘to go on rubbing’ and *tántánxiàoxiào* 談談笑笑 ‘keep talking and laughing’ (1863a, p. 74). Throughout his works, the patterns of reduplication of verbs are AA and AABB.

He also argued that A *yī* A expresses the meaning of diminutive: “*Diminutives*, or verbs that indicate the diminution of the action expressed by the primitive, are formed by adding *yī-tiēn-ār* 一點兒 ‘a little,’ or by the repetition of the verb with *yī* — ‘one’ placed between: e.g.- *k‘āi yī-tiēn-ār* 開一點兒 ‘open a little’ [...], *tàng-yī-tàng* 等一等 ‘wait a little, -delay’” (1863a, p. 75). For Summers, the pattern A *yī* A does not fall into the reduplication of verbs but it denotes a different and opposite meaning, namely attenuating.

¹⁶⁰ *Āiāi* is considered to be an onomatopoeia “indicat[ing] pain”, which can be translated as “Oh! Oh!” in Summers’ point of view (1863a, p. 95).

5.2.3.2 Compounds bear other appositional relation

Apart from reduplication, other types of the “appositional” compounds are presented in this section. The most common “appositional” relation is the combination of synonyms or cognate words, which can be found in nouns,¹⁶¹ verbs,¹⁶² adjectives¹⁶³ and adverbs.¹⁶⁴ Other than that, nouns have their own way of forming appositional compounds. Some nouns are formed by “placing generic terms, the equivalents for *tree*, *stone*, *flower*, *fish*, &c., after the special object: e.g. - [...] *kwei-hwā* 桂花 ‘the flower of the cassia.’ *sūng-shú* 松樹 ‘the fir-tree’” (1863a, p. 47). Summers also argued that classifiers are generic terms and the nouns with which they are associated are specific terms (cf. Chapter 7). Others are formed by “the commencement of a series”, which means that “two nouns of a series are used to form the name of the class which the series expresses” in *Handbook* (p. 47). Summers only provided two examples: “*kūng-heú* 公侯 ‘a nobleman,’ lit. *duke-marquis*; the series being *kūng-heú-pě-tsž-nán* [公-侯-伯-子-男] ‘the five degrees of nobility’ and *kiă-tsž* 甲子 ‘the cycle’; these two characters being the signs of the 1st year of the cycle” (1863a, p. 47).¹⁶⁵

5.2.3.3 Compounds with components “in construction”: taking “in construction” nouns as an example

The constituents within compound nouns can be in genitive relation,¹⁶⁶ dative relation¹⁶⁷ and antithetical relation, according to Summers (1863a, p. 41). With regard to the notion “genitive relation”, Summers wrote: “[c]omposite nouns with a genitival relation existing between their component syllables are such as have the first syllable attributive to the second, as when a

¹⁶¹ For example, *lǜlì* 律例 ‘statute-law’ (1863a, p. 46). Note that, for Summers, *yīng’ér* 嬰兒 ‘infant’ is a compound noun, not a derivative noun. It is not formed by a root and a formative. *Ér* keeps its own meaning and status as a primitive itself and is a synonym of *yīng*, according to Summers (1863a, p. 46).

Summers argued that synonymous verbs, adjectives or cognate verbs can also form composite nouns, for example, *xíngwéi* 行為 ‘actions’, both verbs meaning *to do* (synonyms) and *fèiyòng* 費用 ‘expenses’, lit. ‘to expend-to use’ (cognate), 仁慈 *réncí* ‘benevolent-kind-kindness’ (1863a, pp. 46–47). *Fèi* and *yòng* are actually not cognate words, but here I will follow Summers’ statement.

¹⁶² Summers wrote: “The composition of verbs may be considered under nearly the same heads as the composition of nouns. We have compound verbs formed (α) by repetition, or by the union of synonymes or words bearing a cognate meaning [...]” (1863a, p. 69). For example, *kànjiàn* 看見 ‘look-see \rightarrow see’, *qīhōng* 欺哄 ‘cheat-deceive \rightarrow cheat’ and *yīnggāi* 應該 ‘should-ought \rightarrow ought’ (1863a, pp. 69–70).

¹⁶³ When describing composite adjectives from a semantic perspective, Summers said: “adjectives of cognate signification come together and strengthen each other”, for instance, *qiǎnbó* 淺薄 ‘shallow-thin \rightarrow poor, weak’ (1863a, p. 55).

¹⁶⁴ For example, *xiànjīn* 現今 ‘now-now, at present’ (1863a, p. 85).

¹⁶⁵ I doubt whether there are any more examples of this type.

¹⁶⁶ Or in Summers’ own words “genitival relation”, see 1863a (p. 41).

¹⁶⁷ Summers also called it “dative relation”, see 1863a (p. 50).

genitive case or a participle precedes in European languages” (1864a, p. 52). He further explained that there are three ways to form a word of this kind. First, two nouns form a new noun, with the first morpheme being in the “genitive case”, for example, *niúròu* 牛肉 ‘cow-flesh → beef’. Second, “adjective or a participle” placed before a noun in order to form a new word, for example, *dàmài* 大麥 ‘great-corn → wheat’ and *fēiqiáo* 飛橋 ‘flying-bridge → drawbridge’. Third, some prepositions or adverbs are placed before nouns to form a new noun, for example, *xiānfēng* 先鋒 [鋒] ‘forward-point, van → the van of an army’ (1863a, pp. 49–50). “Dative relation” is “the first of their component syllables in the dative relation to the other” (1864a, p. 53), for example: “*hiǒ-fāng* 學房 ‘learning-room’, i.e. a room for that purpose, = a school-room” (1863a, p. 50). Summers wrote: “[n]ouns formed by uniting words *antithetical* in meaning are very common, and they generally signify the abstract notion implied by these extremes [...] or] gives rise to a *general term*”, for example, *qīngzhòng* 輕重 ‘light-heavy → weight’ and *xiōngdì* 兄弟 ‘elder brother and younger → brethren’ (1863a, p. 51; 1864a, p. 53). He also wrote about verbs,¹⁶⁸ adjectives¹⁶⁹ and adverbs,¹⁷⁰ which will not be elaborated on here.

5.2.4 The change of tones

Besides the abovementioned word-formation processes, Summers explained that in Mandarin, a change of tone can change the word class of a word, but no consistent rule can be derived for this process (1853a, p. 26; 1853b, p. vi; 1863a, p. 8). However, in the examples he gave, there are words with changed tones, like “*chù* 主 ‘a lord’ becoming *chú* ‘to rule’”, but there are also words, which additionally, have changed consonants and vowels, such as “*ǒ* or *gǒ* 惡 ‘bad’

¹⁶⁸ Summers stated that there is a kind of verb that is “formed by the addition of the cognate object, or that on which the action of the verb naturally falls. This object [...] increases the perspicuity of the expression”, for example, *chīfàn* 吃飯 ‘eat-rice → for eat (any meal)’ and *shèzuì* 赦罪 ‘forgive-sin → pardon’ (1863a, p. 73).

Besides all these ways of forming composite verbs, Summers also mentioned some other methods. For example, he said that verbs and adjectives can form new verbs, such as *zhǎngdà* 長大 ‘increase-great, enlarge’ (1863a, p. 73). There are also some “idiomatic forms of expression”, which are formed by *dǎ* 打 ‘to strike’ in *dǎsuàn* 打算 ‘strike-calculate → plan, reckon’ and those “[i]mpersonals and phrases in which the subject follows”, such as *xià yǔ* 下雨 ‘falls-rain → it rains’ (1863a, p. 74).

¹⁶⁹ For example, he wrote: “[a] substantive sometimes stands before an adjective, as one noun stands before another in the genitive case, and thus intensifies the adjective: e.g. - *pīng-liáng* 冰涼 ‘ice’s cold’ = icy-cold” (1863a, p. 55). He also said that there are some affixes which can help to form adjectives, for example, *kě* 可 ‘can’ in *kělián* 可憐 ‘can-pity → pitiable, miserable’, *hǎo* 好 ‘good’ in *hǎoxiào* 好笑 ‘good-laugh → laughable’, *yǒu* 有 ‘have’ in *yǒuliángxīn* 有良心 ‘have good heart → conscientious’ (1863a, pp. 56–57).

¹⁷⁰ Summers also tried to describe composite adverbs according to the word class of their components. For instance, he wrote: “[t]he adverbs of *quality* are generally formed by uniting an adverb of *manner* to an adjective; e.g. - [...] *pě-pwán* 百般 ‘all kinds of’, lit. ‘a hundred classes’” (1863a, p. 89).

becomes *wú* or *hú* ‘to hate’” (1863a, p. 8). Therefore, for Summers, the change of “the tone of a character” refers to the different pronunciations of heteronyms. However, throughout all his works, Summers did not elaborate on this topic.

5.2.5 Composite verbs

As discussed above, according to Summers, words are classified into primitives, derivatives and composites. However, when analysing verbs, Summers only classified them into two types. Accordingly, he wrote: “many [syllables] [...] are formed into verbs by their connexion with certain auxiliaries and adjuncts; these may be designated *compound* or *derivative*” (1863a, p. 69). He only used the term “formative” once when analysing the morphology of verbs: “[t]he student may refer to Arts. 211–213 for several auxiliary or formative verbs and examples” (1863a, p. 137). Verbs that are formed by adding these “formative verbs” should be “derivative verbs” according to Summers’ general statement. However, in his *Handbook* (p. 69), he called them “composition of verbs” and “compound verbs”, instead of “derivative verbs”. This section discusses whether there is any difference between “derivative verbs” and “composite verbs” and further explain why Summers classified the verbs into two types instead of three as with the other parts of speech.

5.2.5.1 “Auxiliary verbs” as formatives

As mentioned above, the term “formative verb” in Summers’ works only appeared once. There is another similar term that Summers employed while discussing the morphology of verbs, namely, “auxiliary verb”. Summers wrote: “[t]he student may refer to Arts. 211–213 for several auxiliary or formative verbs and examples” (1863a, p. 137).

In Arts. 211–213 of the *Handbook* (pp. 76–77) and relevant analysis in the syntax part (pp. 136–137), Summers discussed two types of elements: (1) causative markers, such as *jiào* 叫 ‘call’ in *jiào wǒ zuò guān* 叫我做官 ‘cause me to be a magistrate’, and (2) passive markers, like *jiàn* 見 ‘to see’ in *jiànxiào* 見笑 ‘to be laughed at’ (1863a, p. 76). These two types of elements are “auxiliary verbs” for Summers.

Besides the above examples, “auxiliary” also includes verbs that follow primitive verbs to “limit or perfect the notion of the primitive”, for example, *huài* 壞 ‘injure’ in *nòng huài* 弄壞 ‘do-injure → spoil’ and *bài* 拜 ‘worship’ in *guībài* 跪拜 ‘kneel-worship → prostrate’ (1863a,

p. 70). The meaning of the first morphemes is general, while the second morphemes, the auxiliary verbs, specify the meaning.

Furthermore, another type of “auxiliary verb” is placed “*before* or *after* [the principal verb], to give the idea of intention or completion to the action” and “[to] determine the tense into which it must be construed”. This includes those “for the perfect tense” and those “[f]or the future tense” (1863a, p. 69, pp. 70–71), such as *le* 了 ‘to finish’ in *sǐle* 死了 ‘is or was dead’¹⁷¹ and *yào* 要 ‘will’ in *yàoqù* 要去 ‘wish-go → will or shall go’.¹⁷² According to Summers, these combinations fall in the area of morphology, while very often, tense in Chinese is “shown in the context by some adverb of time [...]. [It does not] belong to this part of the grammar, but will be found treated of in the syntax” (1863a, p. 71).

In the syntax part of his *Handbook* (p. 129), Summers stated that there are other types of auxiliary verbs, for example, those which are prefixed to one verb and denote “*power, origin, fitness, desire, intention, obligation, &c.*” (1863a, p. 69).¹⁷³ This class is similar to what are now generally called “modal verbs”.

All types of “auxiliary verbs” mentioned by Summers have been listed above. Regarding their functions, auxiliary verbs “are used to modify the verbal notion” (1863a, p. 129). Notably, Summers wrote that “[a]uxiliary syllables and particles do however frequently distinguish the parts of speech” (1863a, p. 40), so “auxiliary verbs” have the ability to mark the part of speech-verb.

5.2.5.2 “Derivative verbs” or “composite verbs”?

“Auxiliary verbs” are morphological elements for Summers. When they are part of a verb, they are not considered a root by Summers, but they modify the verbal notion of the root. They can serve as indicators of the word class of verbs, and appear quite frequently. In this way, it seems

¹⁷¹ Other examples are *guò* 過 ‘to pass over’ in *dúguò* 讀過 ‘has read or studied’, *yǒu* 有 ‘to have’ in *yǒushā* 有殺 ‘has killed’, *wán* 完 ‘to finish’ in *chīwán* 吃完 ‘has eaten’, *yǐ* 已 ‘already’ in *yǐzhì* 已至 ‘has arrived’, *jì* 既 ‘finished’ in *jìchī* 既吃 ‘has eaten’, *céng* 曾 ‘already done’ in *céngshí* 曾食 ‘has eaten’ “for perfect tense” (1863a, pp. 70–71).

¹⁷² Other examples are *yuàn* 願 ‘desire’ (no detailed example), *kě* 肯 ‘shall, will’ (no detailed example), *jiāng* 將 ‘to approach’ in *jiāngzuò* 將做 ‘approach-do → shall do, about to do’, and *bì* 必 ‘certainly, must’ in *bìxíng* 必行 ‘certainly- walk → shall walk, must walk’ “for future tense” (1863a, pp. 70–71).

¹⁷³ This type of auxiliary verbs includes *néng* 能 ‘able, can (physically)’ in *néngfēi* 能飛 ‘can fly’, *qǐ* 起 ‘arise, begin’ in *qǐzuò* 起做 ‘begin to do’, *yù* 欲 ‘long for, wish’ in *yùsǐ* 欲死 ‘wish to die’, *yīng* 應 ‘it is fit’ in *yīngtīng* 應聽 ‘should listen’, *yí* 宜 ‘it is right’ (no detailed example is given), *kě* 可 ‘can, may (morally)’ in *kěqù* 可去 ‘may go’, *qù* 去 ‘go’ in *qùzuò* 去做 ‘go to do’, *yào* 要 ‘will, intend’ in *yàodù* 要讀 ‘will read’, *gāi* 該 ‘it is proper’ and *dāng* 當 ‘ought’ in *gāidāng* 該當 ‘ought to bear, ought’ (1863a, p. 70).

that “auxiliary verbs” are considered to be a subcategory of formatives by Summers. Hence, the logical conclusion would be that verbs formed by auxiliary verbs are “derivative verbs”, not “compound verbs”, given the general context of Summers’ works.

However, in Summers’ discussion in the section on verbs in *Handbook*, he did not distinguish between “derivative verbs” and “compound verbs”, but rather treated them as one type of verb. For example, he wrote:

The composition of verbs may be considered under nearly the same heads as the composition of nouns. We have compound verbs formed (α) by repetition, or by the union of synonymes or words bearing a cognate meaning; (β) by joining to the primitive an auxiliary verb, without which the former would convey only a general notion; (γ) by prefixing to one verb another, denoting *power*, *origin*, *fitness*, *desire*, *intention*, *obligation*, &c.; (δ) by placing certain verbs *before* or *after* others, to give the idea of intention or completion to the action; (ϵ) by uniting two verbs, similarly to those mentioned above (β), but which when united give rise to a notion different from the meanings conveyed by the parts separately, or one of them is equivalent to a preposition; and (ζ) by adding the proper object to the verb, like the cognate accusative in Greek, and thus forming a new verb. (1863a, p. 69).

These are all the types of verbs he mentioned, excluding primitives. Among them, (β), (γ), (δ) and (ϵ) are verbs formed by “auxiliary verbs” as mentioned above. (β) and (ϵ) are integrated into one type. From this quotation, we gather that Summers employed “compound verbs” to include all words formed by an auxiliary verb and the other two types of verbs, without distinguishing between “derivative verbs” and “compound verbs”.

Therefore, for Summers, “auxiliary verbs” have certain peculiar features, which set them apart from the archetype of formatives. In other words, those features make the auxiliary verbs assimilate to the root morphemes of verbs. Hence, it is not easy for Summers to draw a line between “auxiliary verbs” and root morphemes or between “derivative verbs” and “compound verbs”. One of the possible features is that many of the auxiliary verbs actually retain their verbal meaning to some extent while forming a verb. They are close to verbs semantically. Formatives, on the contrary, normally denote a rather general meaning or even lose their lexical meaning and tend to be functional when forming a word. In this sense, roots are more closely related to auxiliary verbs than typical formatives. This is possibly one of the reasons why

Summers employed “auxiliary verb” instead of insisting on the term “formative”.¹⁷⁴ However, as mentioned above, the line between “formative” and “root” is not clear-cut. Verbs that are formed by “auxiliary verbs” stand more or less on the vague “boundary” of compounds and derivatives for Summers.

5.2.6 A summary of Summers’ view of Chinese morphology

According to Summers, words in Chinese do not inflect as their counterparts in European languages do, but they do have their own rules of formation. Summers classified words into three types, based on their inner structure: primitives (one syllable with primitive meanings); derivatives (formed by primitives and formatives); and composite words, which are formed by more than one primitive.

Formatives are similar to what we call “derivational affixes” today. The archetype of formatives does not convey any meaning in the words that they form. But in general, the less “pure” formatives denote unspecific or grammatical notions in order to strengthen the meaning of the correlating roots, although the boundary between “root” and “formative” is blurred. Formatives mark the part of speech of the entire word they thus form. It is noteworthy that in this system *de* is the formative to form derivative adjectives in Mandarin. Summers suggested that as long as *de* is added after an adjective, no matter the primitive or composite adjective, it modifies a noun and transforms the entire unit to a derivative adjective. Different from derivative words, each component of a composite word retains its lexical meaning. Summers analysed the structure of composites mainly from the perspective of the semantic relation and “syntactic” relation, as well as the “form class” of their components.

Summers’ point of view about words formed by “auxiliary verbs” is very interesting. The main feature of auxiliary verbs is their proximity to verbs in the sense that many of them retain their verbal meaning when forming a verb, although they share some features with formatives, such as determining the word class.

Words formed by the reduplication of nouns, verbs, adjectives, and adverbs fall within appositional-relation-composite words. From Summers’ point of view, all reduplication forms emphasise or intensify the meaning of the original morphemes.

Summers’ research on morphology focuses on didactic purposes. This explains some paradoxes in his writings. For instance, Chinese has no inflectional morphology and Summers was clear about this. However, he employed many terms from the Latin tradition to explain

¹⁷⁴ The other reason for this use might be to keep coherence to the European tradition, see 5.3.6.

semantic meaning (not morphology) of the composite words in Chinese, such as “genitive”, “participle”, and “ablative” (cf. 5.2.3.3). For example, *niú* ‘cow’ in the word *niúròu* ‘cow-meat → the meat of the cow → beef’ can be understood as bearing the equivalent of “genitive case” in European languages semantically. In Chinese, the first nominal element modifies the second without changing its form at all. “Genitive case” was employed to refer to the first morpheme when two morphemes form a modifier-modified-/possessor-possessioned-relation type of word. The use of these terms is an indication of the pedagogical orientation of his works, which aims to help the students who are familiar with Latin linguistic tradition to be able to learn Chinese more easily. Furthermore, while explaining what counts as a formative in Chinese, Summers listed some elements that denote an “agent” or “person” and can be translated as ‘-er’ or ‘-or’ in English, such as *shǒu* ‘hand’ in *shuǐshǒu* ‘water-hand → sailor’. Although in Summers’ mind, the archetype of formatives should not convey any meaning, and even though the meaning that these elements convey was clearly written down by Summers, he still treated them as nominal formatives. His students, whose mother tongue was English, were always his first concern in compiling his books. Pedagogical practice was the top priority for Summers and it outweighed the sublimated theories. This point will be revisited multiple times throughout this dissertation.

5.3 Summers’ precursors and Chinese morphology

“Morphology”, a term originated in biology was first introduced to linguistics in German in 1859 by the German linguist August Schleicher (Koerner 1995b, p. 55; Davies and Lepschy 1998, p. 200; Salmon 2000, p. 18; Bynon 2001, p. 1230). He analysed ways to classify languages in the field of comparative linguistics and linguistic typology. His morphological typology research is based on different combinations of roots and inflectional affixes. In his opinion, roots convey lexical “meaning”, while inflections express the “relations” between meanings (Davies and Lepschy 1998, p. 200; Blevins 2013, pp. 382–383). He therefore considered the Chinese language to be an isolating language because all forms in Chinese are roots with lexical meaning (Schleicher 1848, pp. 7–8; Davies and Lepschy 1998, p. 213). In the English literature on this subject, “morphology” appeared as a linguistic term in the year 1870 (Salmon 2000, p. 16). Then, “morpheme” was coined by Russian structuralist linguist Jan Baudouin de Courtenay (1845–1929) in the 1880s (Mugdan 1986, p. 29; 1990, p. 51; Davies and Lepschy 1998, p. 304; Aronoff and Volpe 2005, p. 274; Seuren 2015, p. 136). The notion of morpheme being the smallest meaningful unit, however, had already been discussed by Juan

Bautista Lagunas (d. 1604) under the name of “particle” while researching a Mesoamerican language in 1574 (Breva-Claramonte 2007, p. 246).

In the nineteenth century, many German scholars analysed morphology under the name of “Wortbildung” (Salmon 2000, p. 19), for example, Stephen Endlicher (1804–1849, 1845, p. 79, p. 163). Summers’ term “word-building” (1853b, p. vi; 1863a, p. xiii; 1864a, p. 42, p. 43) as mentioned above thus derived from the German term.¹⁷⁵ However, the research on the structure and formation of words started much earlier.

The Word and Paradigm pedagogical model is a traditional way of researching morphology rooted in Greco-Roman tradition (Malmkjaer 1995, p. 256, p. 432). It is based on the binary structure of words and sentences without any other grammatical layers between them. Words are considered to be independent and stable units and there is no concept of morphemes or roots in this model (Malmkjaer 1995, p. 432; Dǒng Xiùfāng 2004, p. 21; Blevins 2013, p. 375). In the eighteenth and nineteenth centuries, the Word and Paradigm Model was still very popular due to its convenience for pedagogy, especially for the teaching of classic languages (Robins 1997, p. 177).

A word was treated as a whole, although attention was paid to the final segments through the Middle Ages (Law 2000, p. 80), until 1506, when Johannes Reuchlin (1455–1522) introduced the Hebrew linguistic knowledge of roots and affixes to Europe. In Reuchlin’s grammar, words are either primitive or derivative. Primitive refers to “a word form without any derivational affixes”, which is equivalent to the modern definition of “root” (Law 2003, pp. 247–248; Jacquesson 2018, pp. 151–153). The term “root” first appeared in English literature in 1530 (Law 2003, p. 132). In nineteenth-century German linguistic works, terms like “root”, “affix”, and “suffix” were widely used (Jacquesson 2018, pp. 150–151). These terms and concepts are very similar to those in Summers’ research. This section, however, focuses on the research of scholars whose works were referred to by Summers.

¹⁷⁵ According to the *Oxford English Dictionary*, the term “word-building” can be found in English literature as early as 1760 (<https://www-oed-com.ezproxy.leidenuniv.nl/view/Entry/230192?redirectedFrom=word-building#eid14318407> [Date of access: 24 February 2023]). However, the meaning it conveys back then is “wording” and “expression” (Anonymous 1760, p. 105), without referring to the concept of “morphology”. The first time it has been used in the context of morphology in English literature as shown in *Oxford English Dictionary* is in *Tiw; or a view of the roots and stems of the English as a Teutonic tongue* by William Barnes (1801–1886, 1862, p. v), but this work appeared nine years after the publication of Summers’ *Gospel* (1853b). Therefore, the English term “word-building” being used as a synonym of “morphology” can probably be attributed to Summers rather than to Barnes.

5.3.1 Does Chinese have grammar in the eyes of Summers' precursors?

Some early scholars, like Mentzel and Andreas Müller (1630–1694) argued that Chinese has no grammar (Klötter and Zwartjes 2008, p. 186). However, in the works to which Summers referred, most of the scholars agreed that there are certain rules in forming Chinese words. Many scholars of his time stated clearly that the words in Chinese do not have inflection.¹⁷⁶ The grammatical meaning expressed by inflections in western languages is conveyed by particles, collocation of words, and the position of the words in a sentence in Chinese.¹⁷⁷ However, among them, Schott claimed that there are only “roots” in Chinese words (1857, p. 4).

As mentioned above, Summers divided Chinese words into three types according to their structure. In the works of his precursors, it is common to find words classified into two types: simple words, which are formed by only one constituent, and compounds, which are formed by more than one constituent.¹⁷⁸ Summers' derivative words belong to “compounds” in their classification. Summers' method of classifying words according to their morphological rules is therefore different from his precursors in the sense that he divided them into three abovementioned classes instead of two. At the same time, his method also shares some similarities with scholars like Edkins,¹⁷⁹ in the sense that Summers' derivative words are part of the compounds in their works.

5.3.2 Summers' precursors and affixation

In his Latin grammar, which Summers referred to, Key argued that affixes are attached to a word in order to “add[...] or alter[...] its meaning” (1858, pp. 4–5). When it comes to the study

¹⁷⁶ For example, Marshman (1814, p. 186), Gützlaff (1842, p. 24), Endlicher (1845, p. 163), Prémare (1847, p. 28), Bazin (1856, p. xxvii), Schott (1857, p. 4) and Edkins (1857, p. ii).

¹⁷⁷ For example, Marshman (1814, p. 517), Gützlaff (1842, p. 24), Endlicher (1845, p. 163), Prémare (1847, p. 28) and Edkins (1857, p. iii).

¹⁷⁸ For example, Morrison (1816, pp. 1–2) said: “two or more characters are joined [...] and form in fact, a compound word.” Endlicher (1845, pp. 168–169) also stated that nouns can be divided into simple words and compound words. The former expresses a specific meaning through a monosyllable, while the latter consists of two or more simple “words”. The same idea was shared by Bazin (1856, p. xii), who stated that a simple word is made up of one syllable, written with one character and expressing one idea; whereas a compound word is formed by several syllables, written with multiple characters but expressing only one meaning. Marshman (1814, p. 500) also mentioned that “compound words” are “two characters united to express one object”. Gützlaff (1842, p. 18), however, divided words into three types: 1) those formed by synonymous words; 2) those formed by two units that denote a general meaning and a definitive meaning separately; and 3) those by two elements that denote different meaning but whose meaning is different from but cognate to its constituents. Although Schott (1857, pp. 12–14) claimed that Chinese is monosyllabic, words can still combine together in four different ways: combination of synonyms, of antonyms, with affixation and others (genitive construction, verb-object construction, participial-noun construction and reduplication).

¹⁷⁹ Edkins (1857) argued that words that are made up of only “one word” are “primitive” or “simple” words, while “compounds” or “derived (words)” consist of more than one “word” (p. 101, p. 191).

of the Chinese languages, what needs to be emphasised again is that words formed by affixes in most works that Summers referred to are considered to be a subcategory of compounds. They are not categorized independently as they are in Summers' works. In order to clarify their influence on Summers, affixation is discussed separately in this section.

Sinologists have employed various terms for affixes. For example, Abel-Rémusat (1822, pp. 110–111)¹⁸⁰ and Bazin (1856, pp. 6–13)¹⁸¹ employed the term “termination” (*terminaison*) to discuss suffixes, whereas Endlicher (1845, pp. 173–174)¹⁸² used the term “appendix syllable” (*Anhangssylbe*). They agreed that these affixes do not convey any lexical meaning—different from “roots”—but only serve as expletives. Like Summers, Morrison also employed the same term “formative”, and wrote: “[t]sze [子] is often added to the names of thing, as a formative of the Noun, or as an Euphonic particle. Occurs in the sense of Love or affection, as for a child” (1815b, Part 1, Vol. 1, p. 702). In his opinion, “formative” expresses the meaning of “diminutive”, which is also brought up by Summers.

As for the analysis of the term “formative”, Anglo-Sinicus' (Dyer)¹⁸³ idea anticipated Summers':

- A vast multitude of nouns are made by what we shall call *formatives*: i.
e. by adjoining to the word containing the radical idea, either (1)

¹⁸⁰ Abel-Rémusat argued that *zǐ* 子 ‘son, [nominal suffix]’ in *fángzi* 房子 ‘house’, *ér* 兒 ‘infant’ in *háier* 孩兒 ‘infant’, *tóu* 頭 ‘head’ in *shítou* 石頭 ‘stone’ are used as word endings (*terminaison*), which are purely expletive (*purement expletif*).

¹⁸¹ From Bazin's point of view, *zǐ* 子 ‘son, [nominal suffix]’, *tóu* 頭 ‘head’, *jiàng* 匠 ‘craftsman’, *rén* 人 ‘man’, *shǒu* 手 ‘hand’ and some generic terms denoting trees or plants (like *shù* 樹 ‘tree’ in *líshù* 梨樹 ‘pear tree’) are all terminations of nouns (*la terminaison des substantifs*). He said that when *zǐ* is used in the word *fùzǐ* 父子 ‘father and son’, its meaning is retained. However, in the word *fǎzǐ* 法子 ‘method’, *zǐ* (*zǐ*) has no lexical meaning, but only acts as a termination (1856, p. xvi). For him, “terminations” convey no meaning in the words they thus formed and their function is only to form the noun. He did not mention whether the tone of *zǐ* in these two examples are different, but in his transcription, there is no difference. He also employed the term “affix” (p. 25). According to his statement, “affix” refers to inflectional affixes, not derivational affixes, which are discussed in this thesis. Although Bazin had pointed out that Chinese words do not have inflections, for the purpose of pedagogy, he had to follow the European tradition of linguistics as close as possible (p. xxvii). For most occasions, he took *mén* 們 as an affix (p. 24, p. xvi), but sometimes, he also treated affixes as terminations, for example: “Les affixes des noms propres, quand ces noms dé signent un royaume, une province, un département, un arrondissement, un district, une montagne, un fleuve, un lac, etc., ou les termes génériques dont j'ai parlé, sont *koŭe* 國 le royaume [...] *Ta'-ing-koŭe* 大英國 l'Angleterre” (pp. 60–61).

¹⁸² Endlicher argued that when *zǐ* is used to form a noun without changing the meaning of the other morpheme, then it is merely a euphonic ending (*als ein bloßer euphonischer Ausgang*). He also argued if *zǐ* keeps its meaning in a word, then it is a derivative syllable (*Ableitungssylbe*), for example *zǐ* in *tiānzǐ* 天子 ‘emperor’ (1845, p. 174). Endlicher (1845, p. 174, footnote) himself claimed that this idea was adopted from Prémare, who wrote: “[s]ubstantive nouns, when alone, or when they close a phrase, require something after them, by which they may be in a manner supported” (1847 [1831], p. 30).

¹⁸³ Anglo-Sinicus is the pseudonym of Samuel Dyer as stated in *The General Index of Subjects Contained in the Twenty Volumes of the Chinese Repository with an Arranged List of the Articles* (Bridgeman and Williams 1851, p. xxii).

particles having a certain generic sense, (2) or euphonic particles. Under the first head we will notice several classes. I. By the addition of 氣 *ke*, denoting (i.) The mental constitutions; as, angry *ke* [*nùqì* 怒氣] denotes anger [...] (ii.) Celestial phenomena or appearances; as, heaven *ke* [*tiānqì* 天氣] denotes weather [...]. We proceed to notice the nouns made by adjoining euphonic particles. These particles are not to be considered as bringing with them any distinctive idea but they frequently throw the preceding word into the substantive form; thus, the particle 子 *tsze*, a child, forms such nouns as the following; table *tsze* [*zhuōzi* 桌子...]. There are many cases where this word, following another noun, would have its own proper meaning; but there is no difficulty in determining when it is euphonic, and when not so. (1840, pp. 349–351)

From this quotation, the following conclusions can be drawn. First, formatives do not convey the “radical idea” of the word, but the root elements of the word do. They either denote a very general meaning in the word or do not denote lexical meaning at all. Second, some of the formatives, or as Dyer called them “euphonic particles”, mark the part of speech of the word they form. But occasionally, they can also be root morphemes and therefore convey their own lexical meaning. All these views were adopted by Summers, together with the term “formative”. Hence, Summers’ perspective of formatives was heavily influenced by Dyer.

Some other scholars also argued that affixes can serve as indicators of part of speech, such as Schott (1857, pp. 12–13)¹⁸⁴ and Bazin (1856, p. xiii).¹⁸⁵ In his discussion of adjectives, Bazin argued that the common termination of adjectives is *de* (1856, p. 26), which can be applied, for example, when determining the part of speech of *hǎode* 好的 ‘good’ to be an adjective (p. xiii). Both of these points were adopted by Summers.

To conclude, most of Summers’ terms and examples about the affixation had already been mentioned by his precursors. Different from others, Summers singled out derivative words from the category of compounds. Among them, Dyer’s analysis influenced Summers the most, including the term “formative”.

¹⁸⁴ Schott stated that *ér* ‘child’ and *zǐ* ‘child’ are “additions (*zusätze*)”, placed after the “basic words (*grundwörter* [sic])”. They function as markers of nouns (*kennzeichen von substantive* [sic]). However, for Schott, there are only “roots” in Chinese words (p. 4), therefore, these “additions” are also roots with full meaning.

¹⁸⁵ Bazin shared the idea that the part of speech of a word can be recognised from its terminations (1856, xiii).

5.3.3 Summers' precursors and reduplication

Some of Summers' precursors, such as Marshman (1814, p. 512) and Edkins (1857, p. 102), also argued that reduplication is a process of forming compounds, just like Summers. Below, I only present those ideas that influenced Summers.

Discussing the effect of reduplication, Edkins (1853, p. 194) said: "the repetition of words frequently affects the grammatical sense of the words repeated. At other times it is mere tautology adopted for rhythmical reasons, or for the purpose of emphasis as in English".¹⁸⁶

As for the reduplication of adjectives, Edkins' (1857, p. 136) argued that they can be reduplicated as either an AAB (for example: *jīngjīngxì* 精精細 'elegant, fine') or an ABB pattern (like *wényǎyǎ* 文雅雅 'having a literary polish'). These patterns and examples were borrowed by Summers (see Section 5.4). Edkins (1857, p. 192) pointed out that sometimes the reduplication form of adjectives "becomes an adverb", like *míngmíngshuō* 明明說 'he spoke plainly', which was also adopted by Summers in his work.

Schott (1857, p. 71) gave an example of the reduplication of verbs *shuōshuōxiàoxiào* 說說笑笑 'chatting and laughing on and on (*in einem fort plaudern und lachen*)', which indicates that the reduplication of verbs intensifies the meaning. Although he did not state clearly that the A yī A structure denotes the diminutive as Summers did, in the translation of the examples, Edkins translated it as "a little", such as in *děngyīděng* 等一等 'wait a little' (1857, p. 177).

In short, Summers adapted his precursors' ideas about reduplication.

5.3.4 Summers' precursors and their views on Chinese compounds

As mentioned above, Summers claimed that there are generally two relations between the constituents in compounds.

The first is the appositional relation, including the combination of repetitions, synonyms, specific and generic terms, and the commencement of a series in the part of nouns. All of these subcategories had been noted by Summers' precursors. For example, Edkins (1853, pp. 72–73) said that species and genus combine together to form nouns like *sōngshù* 松樹 'pine'. Schott

¹⁸⁶ What Edkins meant by "the repetition affects the grammatical sense" is basically reflected in the reduplication of nouns. He said that "[r]epetition of nouns gives them a plural sense", for example, *zǐzǐsūnsūn* 子子孫孫 'sons and grandsons' (1857, p. 214). This idea was shared by Gützlaff (1842, p. 32) and Schott (1857, p. 71), but in their examples, the reduplication of nouns also leads to the meaning of "every" and "each", for example, *jiājiā* 家家 'every family, families' and *rénrén* 人人 'each person, all men (*jeder mensch, alle menschen*)'. Endlicher (1845, p. 196) also mentioned that the reduplication of nouns shows plurality.

argued that synonyms form a composite (1857, p. 55). Summers' precursors did not mention words formed by "the commencement of a series". However, as mentioned above, there are very few items in this category and Summers himself only gave two examples.

The second relation between constituents in compounds in Summers' works are formed by "[w]ords [which] are in construction". Summers mainly used case terms to express the relation between the constituents of compounded nouns, such as genitive relation and dative relation. Bazin (1856), for example, also employed cases to describe the relation. He claimed that when two nouns stand together to form another noun, the first noun is in the genitive case and the second one is in the nominative case (p. 16), such as, *niúròu* 牛肉 'beef' (p. 18). While talking about verbs, the "addition of the cognate object, or that on which the action of the verb naturally falls" was also mentioned by other scholars. For instance, Edkins (1857, p. 169) gave the same examples like *chīfàn* 吃飯 'to (eat rice) dine' and *dúshū* 讀書 'to study (books)'. Edkins did not state that these are verbs combined with their cognate objects, as Summers did, but he said: "[t]he proper force of the substantive is lost in these expressions, at least in translation".

As for the part of compound adjectives and adverbs, Edkins and Summers had a lot in common as well. For example: Edkins (1857, pp. 135–136) also mentioned that two synonyms may form an adjective such as *shēchǐ* 奢侈 'extravagant'; the combination of a noun and an adjective can serve as an adjective (for example, *bīngliáng* 冰涼 'icy cold'); the two "potential particles" *kě* 可 and *hǎo* 好 can help to form adjectives, such as *hǎoxiào* 好笑 'laughable', and two primitive adverbs can form an adverb, like *kuàngqiě* 况且 'and much more when, further' (Edkins 1857, p. 192). These are all mentioned in Summers' works.

In the structure of compound words, most of Summers' arguments had been mentioned in his precursors' works.

5.3.5 Summers' precursors on the change of tones

Regarding tonal change, Edkins said: "[v]ariation in tone might be enumerated as a third mode of supplying the want of inflexions". For example, the tone of *mú* '磨 in *mú* ' *tsz* 磨子 'a mill' is a "quick rising tone" in Shanghainese, which is different from that in *mú máh* 磨麥 'grind wheat' (1853, p. 79). But he emphasised that although the tones are different, "the enclitic 子 [*tsz*] is an inseparable appendage to the noun" (1853, p. 79). Morrison (1815b, Part I, Vol. 1, p. 17) said: "[w]ords used both as nouns and verbs, are generally, when used as verbs, read in

Keu Shing [departing tone]”. Schott’s idea and one of the examples were adopted by Summers. Schott argued that certain words move from one word class to another by changing their tones or their articulations, such as “*ngö*”/“*ú*” 惡 ‘evil’/‘to hate’ (1857, p. 27). Their argument, especially Schott’s, reveals that they do not regard tonal change as a word-formation process. By contrast, they actually point out that different pronunciations can be recorded with the same written character, and their different forms belong to different word classes, although the meaning they convey has some connection with each other. In other words, their description is more like an explanation of heteronyms in Chinese, rather than a derivational relation between the elements in question.

5.3.6 Summers’ precursors on “auxiliary verbs”

As mentioned above, Summers was hesitating about the identity of “auxiliary verbs”, since they have the properties of both the roots and the formatives. His precursors had similar views, which are presented here.

Regarding Summers’ view on auxiliary verbs discussed above, the term itself was also employed by authors like Marshman (1814, p. 403), Abel-Rémusat (1822, p. 131), and Bazin (1856, pp. 38–39). Abel-Rémusat gave many examples, but did not classify them into different types nor did he explain them in detail. Bazin’s examples are very similar to those of Abel-Rémusat (Abel-Rémusat 1822, pp. 131–136, pp. 150–155), but Bazin classified auxiliary verbs into three categories, which includes what we now call “directional complements” like *lái* 来 ‘come’ in *jìnlái* 進來 ‘enter-come → get in’, those which express the meaning of tense, mode and aspects, (for instance, *le* 了) and other auxiliary verbs like *kě* 可 ‘can’ in *kěpà* 可怕 ‘can-afraid → formidable’, *bǎ* 把 ‘take’ in *bǎ wǒ dǎsǐle* 把我打死了 ‘He killed me’ (1856, pp. 38–39; pp. 78–82). Marshman (1814, p. 455, p. 403) claimed that auxiliary verbs either express tense (e.g., today’s adverb *yǐ* 已 ‘already’, p. 435), or mood (e.g., today’s auxiliary verb *yuàn* 願 ‘would’, p. 416). His examples also include aspect markers (e.g., *le* 了, p. 435).

Among all the scholars whom Summers mentioned, Edkins’ classification and explanation of auxiliary verbs is the most detailed (1853, 1857). Before delving into Edkins’ “auxiliary verbs”, his “auxiliary words” will firstly be discussed. Although Edkins divided words into only two classes, namely simple words and compounds, he stated that there are certain words which are formed by adding “auxiliary words”.¹⁸⁷ He said that auxiliary words are “which have

¹⁸⁷ Edkins also used other terms, like “enclitic” and “proclitics” (1853, p. 74, p. 125; 1857, p. 104, p. 103).

nearly or quite lost their primary meaning as independent [words]” (1853, p. 125), i.e., they “are such as losing their own independent character and governing power, are applied to limit other words in their action or signification” (1857, p. 165). Examples of the nominal “auxiliary words” are not only the common *zǐ* 子 ‘son, [nominal suffix]’, *ér* 兒 ‘son’, *tóu* 頭 ‘head’, but also words that denote “agents”, for example, *fū* 夫 ‘man’ in *mǎfū* 馬夫 ‘horse-man → a groom’.¹⁸⁸ Many of these examples also appeared in Summers’ works, and are also listed under the category of “agents”. Also, within this “agent” category, Edkins (1857, pp. 105–106) mentioned “an active verb, with its object followed by *de*, for agents”, for example, *dúshūde* 讀書的 ‘read-book agent → student’, as Summers did, although Edkins did not explain it in such detail as Summers. Edkins further claimed that “[t]ransitive verbs with a noun after them, followed by 的 *tih* are employed to designate agents, as in 辦事的 *pan‘ shī tih*, [do-thing agent→] a manager. Such examples are both compounds, inasmuch as the verb and its object retain their meaning, and derivative since *tih* is nothing more than a termination” (1857, p. 111). Therefore, although Edkins only divided words into primitives and composites as mentioned above, he distinguished derivatives and compounds in the way that the elements of a compound retain their own lexical meaning, whereas in derivatives, one of the elements does not have any lexical meaning.¹⁸⁹ This is very similar to nominal formatives in Summers’ works, including their concept, categories and examples.

Let’s turn to the “auxiliary verbs” in Edkins’ works. Edkins divided “auxiliary verbs” into six classes according to their semantic meaning, namely “auxiliaries which limit the verb to a single act of perception” (e.g., *jiàn* 見 ‘to perceive’ in *yùjiàn* 遇見 ‘meet-perceive → meet’), “auxiliaries [which] give direction to the action of the verb” (e.g., *shàng* 上 ‘go up’ in *bānshàng* 搬上 ‘move-go up → remove upwards’), “auxiliaries [which] describe the beginning, cessation and completion of an action” (e.g., *wán* 完 ‘end, finish, complete’ in *jiǎngwán* 講完 ‘speak-finish → finish speaking’), “auxiliary words [which] give the idea of collection and separation”

¹⁸⁸ Other examples are: *shǒu* 手 ‘hand’ in *qiǎoshǒu* 巧手 ‘clever artificer’, *zuò* 作 ‘to do’ in *mùzuò* 木作 ‘wood-do → carpenter’, *jiàng* 匠 ‘artificer’ in *níwǎjiàng* 泥瓦匠 ‘mud-tile artificer → bricklayer’, *jiā* 家 ‘family’ in *hángjiā* 行家 ‘bank-family → acting party’, *rén* 人 ‘man’ in *dúshūrén* 讀書人 ‘read-book man → scholar’, *gōng* 工 ‘work, a workman’ in *huàgōng* 畫工 ‘paint-workman → painter’, *shīfu* 師傅 ‘teacher’ in *cáifeng shīfu* 裁縫師傅 ‘tailor-teacher → tailor’, *tóu* 頭 ‘head’ in *fàntóu* 飯頭 ‘food-head → cook in a monastery’ (Edkins 1857, pp. 103–105)

¹⁸⁹ As for the idea that formatives denote localities in Summers’ category, Edkins also wrote: “口 *k’eu*, mouth, 門 *men* ‘door’ are used in compound for any opening or entrance”, for example *yámén* 衙門 ‘government-door → magistrate’s office’ and *shānkǒu* 山口 ‘mountain-mouth → mountain pass’ (1857, p. 106). However, Edkins did not claim that these two are “auxiliary words”.

(e.g., *kāi* 開 ‘open’, express separation in *fēnkāi* 分開 ‘separate-open → separate’), “[auxiliaries which express] restraining, resisting, and destruction” (e.g., *zhù* 住 ‘dwell at’ in *bǎngzhù* 綁住 ‘tie-dwell → tie up’) and “[auxiliaries which express] excess and superiority” (e.g., *guò* 過 ‘pass, exceed’ in *mántou fāguò* 饅頭發過 ‘bread raise pass → the bread has risen too much (of bread-making)’), 1857, pp.165–169).

Summers’ detailed description and classification of auxiliary verbs are similar to Edkins, Abel-Rémusat and Bazin. However, there is an essential difference: in Summers’ view, auxiliary verbs are not typical formatives, but they are more like verbs, whereas for the others, auxiliary verbs and auxiliary nouns are all auxiliary words, which are affixes. However, there are also scholars who consider “auxiliary verbs” closer to roots than to affixes, for example, Schott’s work (1857, pp. 60–62), and most of Summers’ examples of auxiliary verbs, which denote “*power, origin, fitness, desire, intention, obligation, &c.*” (1863a, p. 69), were from Schott. In fact, in the European linguistic tradition, “auxiliary verbs” are a type of verb that always combines with other verbs and helps conjugate the latter to denote grammatical categories like mood and tense (Anderson 2000, p. 803). The term “auxiliary verb” which Summers employed denotes a similar but broader meaning to that of the European linguistic tradition.

5.4 Summers’ successors and Chinese morphology

Some of Summers’ successors also touched on the topic of Chinese morphology.¹⁹⁰ Among them, Gabelentz’s (1881, 1883) study of morphology is more systematic, but with no specific trace of Summers’ influence.¹⁹¹

An overt change of the second edition of Edkins’ *A Grammar of the Chinese Colloquial*

¹⁹⁰ For example, Douglas (1904) mentioned that two synonyms can form a new word (p. 55, p. 92).

¹⁹¹ Gabelentz argued that words can be divided into three types according to their structure: monosyllabic stem words (*einsylbige Stammwörter*), reduplicated words (*Doppelungen*) and compounds (*Zusammensetzungen*). The last class includes words with more than one root and words formed by roots and affixes (1883, p. 26). To be more specific, according to Gabelentz, compounds formed by more than one root are synonym compounds or antonym compounds, which express abstract meaning (like *chángduǎn* 長短 refers to length), or attributive compounds, such as *héshuǐ* 河水 ‘water of the river’ (1881, pp. 115–117; p. 125; 1883, pp. 21–22). With regard to the auxiliary nouns, he also gave examples with *ér* 兒 ‘son’ and suffixes (*Nachfügung*), which denote career, like *rén* 人 ‘man’ in *jiàng rén* 匠人 ‘worker’ (1883, pp. 88–89). As for the auxiliary verbs, he mentioned those which appear at the front of a word (*vorantretende Hilfsverba*), such as *yào* 要 ‘will’ “for future tense (*futuri*)”, those placed after the main verb (*Nachgefügt*), for instance, *le* 了 ‘complete’ “often for the past tense” (*praeteriti*) and those that show the directions (*Hilfswörter der Richtung*) like *lái* 來 ‘come’ (1883, pp. 97–98). He also mentioned the reduplication of verbs (1883, p. 99). In general, Gabelentz’s research on Chinese morphology is similar to that of his precursors, including Summers.

Language (1864) will be discussed here. Edkins deleted the AAB pattern from the reduplication of adjectives, with the ABB pattern remaining (1864, p. 145). In fact, the AAB pattern is a reduplication pattern in Shanghainese. For example, in Shanghainese, 雪雪白 [in Mandarin: *xuěxuěbái*] ‘snow-white’ is acceptable, whereas in Mandarin, it is ungrammatical (Xú Lièjiǒng and Shào Jingmǐn 1997, p. 72). This pattern also exists in other varieties of the Chinese language, such as the topolects of Shèxiàn, Yīngshān, Sūzhōu, Fúzhōu and Hakka of Chángtīng (Huáng Bóróng et al. 2001, p. 51, p. 52), but not in Mandarin. Therefore, Edkins deleted the AAB pattern in the second edition of his book concerning Mandarin. However, as mentioned above, Summers adopted both these patterns together with Edkins’ examples in his *Handbook*. In other words, Summers did not notice that the AAB reduplication pattern of adjectives is ungrammatical in Mandarin. Perhaps his Shanghainese was good and he mistook it for a pattern in Mandarin as well.

In Doolittle’s dictionary, the ABB pattern of the reduplication of adjectives also appeared, with the example *wényǎyǎ* 文雅雅 ‘polish’ (1872, Vol. 1, p. 288). Its English gloss is closer to that of Edkins’ “having a literary polish” (1857, p. 136) than Summers’ “of literary elegance” (1863a, p. 56). It is more likely that Doolittle referred to Edkins’ first edition of *A Grammar of the Chinese Colloquial Language* (1857).

5.5 Summary

Summers argued that Chinese words do not inflect but that there is still morphology in Chinese. He divided words into three types according to their structure, namely primitives, derivatives and compounds, which was an innovation on the dominant division into two types by his contemporaries.

Summers stated that derivatives are formed by adding formatives to a primitive. Formatives, for Summers, only denote unspecific or grammatical meaning rather than concrete lexical meaning and can mark or change the parts of speech of the word. They mainly form nouns, adjectives and adverbs. Summers’ view of formatives was greatly influenced by Dyer (1840).

According to the relationship between their components, Summers classified compounds into two types. In the first type, the components are in an appositional relation. This class includes compounds formed by repetition, appositional synonyms and so on. The second type is “words [...] in construction” (1863a, p. 85). This classification of two general types is innovative, although the detailed classes and most of his examples had already been mentioned

by his precursors.

Summers' classification of what he called auxiliary verbs is interesting. For Summers, auxiliary verbs are closer to verbs—actually a general notion in European linguistics—although Summers also pointed out some similarities between auxiliary verbs and formatives. Therefore, while discussing the morphology of verbs, Summers only divided them into primitives and composites, without further distinction between derivatives and compounds, and he tended to call them “compound/compositive verbs”.

When it comes to the research on compound adjectives and adverbs, Summers was greatly influenced by Edkins (1857).

With regard to reduplication, Summers had a lot in common with his precursors. Summers claimed that reduplication was used to intensify the meaning of the original element. In the part on the reduplication of adjectives, he borrowed the patterns AAB and ABB with examples from Edkins (1857), without noticing that the AAB pattern is ungrammatical in Mandarin.

Overall, Summers' research on morphology is well organised. The classification of words into different hierarchies is very clear and makes a lot of sense. For example, “reduplication” is classified under the “appositional relation”, and the “appositional relation” is classified under “composite”. Although each detailed category was mentioned by previous scholars, Summers rearranged them in his own way. In his research he did not follow one particular scholar but instead presented a convergence of the work of his precursors. His introduction to Chinese morphology has strong didactic features, yet had little influence on other scholars.