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Verb-Object Constructions in Mandarin: a comparison with Ewe

Abstract: This article concerns Verb-Object Constructions (VOCs) in Mandarin in comparison with the same type of constructions in Ewe. VOCs are verbs that necessarily take an overt object. Taking Essegbey's (1999) analysis of Ewe VOCs as starting point, I propose different criteria to classify VOCs in Mandarin, and I provide evidence for the existence of four different classes. Then, by comparing VOCs in the two languages, I propose a syntactic analysis for each class of VOCs. Finally, I argue that Mandarin VOCs are the reflection of different stages of a lexicalization process that is not affecting Ewe VOCs. I conclude arguing that Ewe belongs to a more "analytical" stage than Mandarin.

Keywords: Verb-object, Ewe, Mandarin, comparative syntax, obligatory object

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1 Introduction

Mandarin and Ewe, as well as several other Kwa languages, have a large number of verbs that obligatorily take a complement.[1] The label Verb Object Constructions (VOCs)[2] intends to capture the fact that several Mandarin and Ewe counterparts of some English intransitive verbs are syntactically transitive, that is they "necessarily involves at least two participants and [. . .] an activity that is carried-over or 'transferred' from an agent to a patient" (Hopper and Thompson 1980: 125). In other words, these verbs require a complement or a direct object, even

1 Obligatory Complement Verbs are prevalent in Kwa and Benue-Congo languages of West Africa. The phenomenon is not limited to Mandarin and West-African languages: Davies (1981: 244), cited by Essegbey (1999), has an example with Obligatory Complement Verbs in Kobon, an Indo-Pacific language:

(i) *Nig* *pak*
Water strike
'Swim'

2 In the literature on Ewe, these kinds of constructions are also termed Inherent Complement Verbs (Essegbey 1999, 2003; Nwaxhukwu 1987).

though their meaning is always a generic activity reading that is usually expressed with the verb alone in languages like English. Take for instance the verb *run* both in Mandarin (1) and in Ewe (2):

(1) *Zhāngsān pǎo bù le.*[3]
Zhāngsān run step FP
'Zhangsan ran.'

(2) *Kofi fú du.*
Kofi v[4] race
'Kofi ran.'

In the two examples above, the verb-object combination is interpreted in the same way as the English intransitive verb *run*; however, in Mandarin and in Ewe the verb requires a direct object: *bù* 'step' in Mandarin and *du* 'course/race' in Ewe.

In all these verb-object combinations, either the verbal part does not seem to contribute very much to the meaning of the combination as a whole (in which case it is called "dummy verb") or it is the object that does not contribute much to the meaning (in which case it is called "dummy object"). Consider the following:

(3) *Mǎlì chī fàn le.*
Mary eat rice FP
'Mary ate.'

(4) *Kofí fú tsi.* (cf. with ex. (2))
Kofi v water
'Kofi swam.'

In the Mandarin example in (3), the verb-object combination *chī fàn* 'eat rice' yields a generic activity reading, in which the action of eating is not applied to any specific rice.[5] In this respect, the object *fàn* 'rice' is not referential and it does

3 The following abbreviations are used in glossing examples: ASP aspectual marker; BA particle for introducing preposed object; CL classifier; DE determination particle; DEF definite; FP final particle; HAB habitual marker; MOD modal particle; ORD.N. ordinal number; Q question element; SG singular.

4 On the line of the literature on Obligatory Complement Verbs in Ewe, I gloss these verbs simply as v. I will clarify their interpretation later in the discussion.

5 In the example (3), if the verb lacks the overt complement, the generic activity reading ('eating') is lost and the object is interpreted as referential: *Mary* is eating something that it was mentioned in the previous discourse (Cheng and Sybesma 1998). I will discuss this case in detail later.

not provide any contribution to the meaning of the verb-object construction, contrary, for example, to *miàn* 'noodles' in *chī miàn* 'eat noodles', which needs to be interpreted as independent from the verb: *chī miàn* does not denote the generic activity of 'eating', but the specific event of 'eating noodles'. On the other hand, in the Ewe example in (4) the meaning of the verb "cannot be determined without taking into account the meaning of its obligatory complement" (Essegbey 2008: 217). The semantic contribution of the verb *fú* is too light: the speaker is not able to provide a clear meaning for it without first knowing the complement it occurs with.[6]

The classification of VOCs in Chinese is a much debated issue in the Chinese linguistics literature. However, to my knowledge there is still no explicit account that attempts to give a unified explanation of all possible Chinese VOCs. In this paper, I aim at making a systematic and comprehensive classification of VOCs, including VOCs with dummy objects and VOCs with dummy verbs. In order to clarify the VOCs in Mandarin, I will compare Mandarin VOCs with Ewe VOCs. Such a comparison is particularly interesting because, despite the fact that Mandarin and Ewe belong to two completely different language families, both these languages are described as "analytic" and display the same phenomenon of VOCs. Moreover, as I will illustrate later in the discussion, Ewe VOCs have been extensively studied as a unitary phenomenon. On the contrary, Mandarin VOCs lack a systematic and comprehensive classification, presumably because VOCs with dummy objects and those with dummy verbs are regarded as two different phenomena. Therefore, the comparison between Mandarin VOCs and Ewe VOCs helps to find new empirical tests and formulate theoretical proposals about the syntactic structure of VOCs, casting light on the nature of analyticity in Ewe and Mandarin. Moreover, the comparison between Ewe and ~~Chinese~~ helps in proposing a different way to analyze and represent in syntactic terms the relation between verb and object in VOCs. The analysis of VOCs in Ewe is the starting point to develop new tests to individuate different types of VOCs in ~~Chinese~~. This investigation also helps to clarify the different stages of lexicalization of ~~Chinese~~ VOCs.

First, the differences between the ~~two~~ VOCs in ~~(3) and (4)~~ raise the following questions: are the VOCs in Mandarin and Ewe part of a homogeneous class? Can the Mandarin VOCs be classified in the same way as Ewe VOCs? What kind of criteria should we use in order to distinguish the different types of VOCs?

Essegbey (1999), in his extensive work on Ewe VOCs and their objects, divides them in different groups on the basis of the semantic properties of the verb. In

6 *Fú*: "someone (X) autonomously moves limbs swiftly at a location (Y) in a manner appropriate for (Y)" (Essegbey 1999: 210).

this paper, I will propose different criteria to classify VOCs in Mandarin. The different behavior with respect to the tests I propose, reveals the different properties of Mandarin VOCs. I compare Mandarin VOCs with Ewe VOCs showing that they cannot be considered as part of a homogeneous class.

Second, as I illustrate in this paper, VOCs in Mandarin and Ewe are syntactically transitive, since they always need an object that has the same distributional properties as the objects occurring in canonical transitive constructions. However, their interpretation is always a generic activity reading. This raises the following questions: how are VOCs represented in the syntactic structure? In particular, since VOCs have a generic activity reading only if their object is a bare noun, how does the bare noun combine with the verb?

Third, what do VOCs tell us about the analyticity of Ewe and Mandarin? I argue that Mandarin VOCs are the reflection of different stages of lexicalization, due to the strong tendency of disyllabification that Mandarin seems to obey. It seems, in fact, that Mandarin VOCs and their objects undergo a process of lexicalization, in the sense that verb and object are listed in the lexicon together as one word and not as a phrase (Huang 1984, Feng 1998). I propose different syntactic analyses that are a reflection of different stages of lexicalization in Mandarin. This will point out that Ewe VOCs do not undergo this lexicalization process. I conclude arguing that Ewe seems to be a language at a more "analytical" stage than Mandarin.

The paper is organized as follows: in Section 2, I review Essegbey's (1999) analysis and the criteria for classification of VOCs in Ewe. In Section 3, I propose different criteria to classify VOCs in Mandarin and I provide evidence for four different groups. In Section 4, I compare VOCs in Ewe and in Mandarin, showing that the majority of Ewe VOCs belong, syntactically to the fourth group of the Mandarin classification, even though, semantically, they also share properties with the other groups. I propose a syntactic structure for each class of VOCs in Mandarin and Ewe. In Section 5, I sketch an analysis within a diachronic perspective. In Section 6, I summarize the main conclusions of the article.

2 VOCs in Ewe

2.1 Syntactic distribution

Essegbey (1999, 2002, 2003, 2010) investigates the so-called Inherent Complement Verbs (ICVs), that in this paper I call Verb-Object ~~combinations~~ (VOCs).[7] The

7 In Chapter 6 of his dissertation, Essegbey (1999) classifies the ICVs as a sub-group of the VOCs.

VOCs is a topic which has been widely studied in Kwa languages since the mid eighties. Nwachukwu (1987) calls the object of the VOCs "meaning-specifying complement", in the sense that, for instance, the meaning of the verb *fú* in (4) is specified by its inherent complement. Moreover, the meaning expressed by the verb together with the complement is usually expressed by an intransitive verb in many Indo-European languages. Baker (1988) and Ihionu (1992, 1993) argue that the complement of ~~an~~ VOC is a bare NP whose head incorporates in the verb, while Manfredi (1991) consider the object a full DP that is licensed by the verb just as a normal direct object. In more recent work, Aboh (2010) argues that verbs in VOCs (in Gungbe) are light verbs that occupy a little *v* position in the structure. I will adopt and illustrate Aboh's analysis later in the discussion. Contrary to what Aboh suggests, Essegbey (1999 and subsequent work) argues that VOCs do not constitute a class distinguishable from other complement taking verbs in the language. That is, the VOCs are canonical transitive constructions.

First, Essegbey shows that the objects of VOCs behave syntactically like direct objects of other transitive verbs. Secondly, he claims that the verbs in the VOCs are not without meaning. VOCs are as transitive as prototypical transitive constructions in Ewe (see Aboh, 2010 for Gungbe; Avolonto 1995 for Fongbe; Nwachukwu 1987 for Igbo). All the VOCs in these languages have the same syntactic behavior. Essegbey argues that the distributional pattern of VOCs is not different from canonical transitive verbs. First, he shows that VOCs are not a lexical unit since verb and object can be separated by an aspectual and/or modal affix like all the other verbs: in the VOC in (5) the verb *dze* and the object *dɔ* can have an intervening progressive morpheme *-na*:

(5) *Kofí dze-na dɔ*
Kofi V-HAB illness
'Kofi falls ill.'
(Essegbey 2002: 3a)

Canonical transitive verbs can be nominalized with the reduplication of the verb with an optional presence of a preposed generic complement (see example in (6a)). The verbs in VOCs can be nominalized in the same manner (as exemplified in (6b)). However, unlike canonical transitive verbs, the verbs in VOCs obligatorily require the preposed complement.

(6) a. *Fo → (ame) fofo*
hit person hit-hit
'Hitting'
(Essegbey 1999: 106)

b. *Fú du → *(du) fú-fú*
v race race v-v
'Running'
(Essegbey 2002: 10b)

In addition, Essegbey shows that the object of VOCs can appear in subject position in the *nyá*-construction, a structure similar to the passive construction in English. The object moves to the subject position followed by the modal *nyá* and the logical subject is introduced by the preposition *ná* 'to/for' (Collins 1993):

(7) *Du nyá fú-ná ná Kofí.*
Race MOD V-HAB for Kofi
'Kofi is able to run.'
(Essegbey 2002: 38a)

Finally, the object of VOCs can be modified (see ex. (8)), i. e. it can be expanded into a DP, fronted (already seen in (9)) and pronominalized in the appropriate context (see ex. (10)), just like the object of a canonical transitive verb. Notice, however, that when fronted or pronominalized the object has a referential interpretation and it has to be put in a context, that implies some sort of contrast.

(8) *E-fú tsi fodi.*
3SG-V water dirty
'He swam in the dirty water.'
(Essegbey 2002: 21)

(9) *Tsi Kofí fú kabakabà.*
water Kofi v fast
'Kofi swam fast.'

(10) *Kofí fú tsi-a? É-fú-i.*
Kofi v water-Q he-v-it
'Did Kofi swim? He did.'

Finally, the object of VOCs cannot co-occur with another object:

(11) **Kofi fi fi (*awu).*
Kofi steal theft garment

In this paper, I side with Essegbey in maintaining that the distributional properties of VOCs are not different from those of canonical transitive constructions.

However, I also wish to stress that this fact does not tell us anything about the "argumenthood" status of the inherent object. It remains to be explained, in fact, why these verbs always require an object.

2.2 Semantic groups

The literature on the semantics of VOCs is vast. As mentioned above, Nwachukwu (1987) first defines verbs in VOCs (in Igbo) as verbs whose citation form is followed by a "meaning-specifying" complement. Avolonto (1995) and Boadi (1994) claim that verbs VOCs (in Fongbe) are simply verbalizers and that the semantic content of the sequence is provided by their complement, which is a "meaning supplier". As for the semantic analysis, I follow Ameka (1994a, 1994b), Essegbey (1999), and Saethero and Hellan (1996) who argue that the verbs of the VOCs do possess meaning. More specifically, Essegbey (1999) claims that verbs in VOCs do not belong to a formally distinct class of meaningless verbs. He claims that "there are no verbs without meaning in Ewe but [that] there is a situation in which the semantic labor of all sentences is distributed among elements of the construction of which the verb is only one" (Essegbey 1999: 1). He argues that Ewe verbs in VOCs have an invariant meaning in most of their occurrences and that specific glosses in the literature tend to conceal this fact giving rise to the erroneous claim that they are meaningless.

Essegbey shows that actually verbs and objects in VOCs form two clines: one relating to verb specificity, and the other relating to complement specificity. The less specific verbs occur with the more specific complements, while the more specific verbs occur with less specific complements. He presents a de-compositional analysis of some of them, establishing four different groups.[8]

2.2.1 Group 1

The first group includes transitive verbs with a highly specific meaning, they express a caused change of state and have a generic complement like *ame* 'person' in (12) and *nu* 'thing' in (13). Notice that in the other VOCs a generic complement is not admitted.

8 All the following data ~~is~~ from Essegbey (1999: Chapter 6).

(12) *Wu ame*
Kill person
'Kill'

(13) *Ɖlɔ nu*
Weed thing
'Weed'

2.2.2 Group 2

In the second group, Essegbey lists transitive (causal) verbs with a specific meaning. These verbs cannot take a generic object; instead they take a "cognate object":[9]

(14) *Fi fi*
Steal theft
'Steal'

(15) *Ɖú ɣe*
Dance dance
'Dance'

Notice that when these verbs co-occur with another (compatible) object, the action that they denote remains the same.

(16) *Kofi fi awu.*
Kofi steal garment
'Kofi stole a garment.'
(Essegbey 1999: 198)

2.2.3 Group 3[10]

The verbs in this group are intransitive in the sense that the subject does not affect the object. Essegbey (1999: 228) calls these verbs "non-causal": "these

9 A cognate object is an NP that has the same meaning or the same morphological stem of its selecting verb. Also Mandarin has objects that can be qualified as "cognate objects", like *xǐ-zǎo* (wash/bathe-bath) 'shower'. In this paper I do not take this kind of verbs into account.
10 Group 3 in this paper actually corresponds to group 4 in Essegbey's classification. I exchanged the order of the two last groups for expositive reasons.

verbs do not have a causal semantics. That is to say that their specification neither includes the element of caused change-of-state/location nor that of *control* . . . these verbs express various relations (e.g. spatial, possessive, attributive, etc.) between two entities."

Ká: something (X) which is movable makes light contact with another thing (Y).

According to Essegbey (1999: 233), "*ká* is neutral to Cause. Since it simply expresses contact without effect, it can enter into the three-place construction in order to take Cause . . . in English is usually glossed with 'touch'. However, unlike 'touch' in English which has 'hands' as its default argument, *ká* does not possess any default argument."

(17) *Kofi ká así devi-á ŋútí.*
Kofi v hand child-DEF side
'Kofi touched the child with the hand.'

Cf. with

(18) ?*Kofi ká Amí ŋú.*
Kofi v Ami skin
'Kofi (i.e. his body) touched Ami.'[11]

Tɔ: the relatively pointed end of something (X) comes into sharp contact with the comparatively flatter side of an entity (Y).

Essegbey (1999: 235): "It is the lack of determinacy about whether the state of affairs expressed by the verb *is intentional or not* that I take to be representative of neutrality with respect to Cause."

(19) *Kofi tɔ he Komi.*
Kofi v knife Komi
'Kofi stabbed Komi.'

11 "This sentence does not mean that Kofi touched Ami with his hands. In fact it is slightly odd because the part of Kofi that makes the contact has not been specified. It is, however, acceptable in the context where Kofi is being carried and his body somehow makes contact with Ami's." (Essegbey 1999: 234).

(20) *Kofi tɔ dzo*[12] *afé-á.*
Kofi v fire home-DEF
'Kofi set fire to the house.'

2.2.4 Group 4

The verbs in this group always take meaning-specifying complements. They can take neither generic complements (as in group 1) nor "cognate objects" (as in group 2). Essegbey shows that these verbs possess invariant meanings, but such meanings are under-determined and, thereof, further specified by their complements.

Dó Always involves someone causing something to move to a location that is determined by the nature of the thing being moved:

(21) a. *Kofi dó awu.*
Kofi v garment
'Kofi dressed.'
b. *Kofi dó abui.*
Kofi v needle (of syringe)
'Kofi gave/received an injection.'
c. *Kofi dó nududu na Ami.*
Kofi v food to/for Ami
'Kofi fed Ami.'
d. *Dó atí*
v tree
'Plant a tree'

Ƒú: involves an entity (X) that autonomously moving limbs swiftly at a location (Y) in a manner appropriate for (Y) or 'move continuously at' (Ameka (1994b)):

(22) a. *Fú du*[13]
v course
'Run'

12 According to Essegbey (1999: ft. 14 p. 237): ". . . this expression could be originally due to the use of firewood to set fire to things. These woods usually have relatively pointed edges, which must explain the use of *tɔ* to describe the situation in which a small flame is brought into contact with an object, thereby setting it on fire."
13 The object *du* can be replaced with different kinds of 'race'.

b. *Fú tsi*
v water
'Swim'
c. *Fú kɔ´ Komi.*[14]
v fist Komi
'Kofi knocked Komi down.'

Tu: All the meanings involve contact of some sort:

(23) a. *Tu ga*
v metal
'Forge metal'
b. *Tu afɔ*
v foot
'Kick'
c. *Tu blí*
v maize
'Ground maize'

Da: An entity (X) through the use of a part of the body, causes another entity (Y) to move away:

(24) a. *Da kpe*
Throw stone
'Throw a stone'
b. *Da gbe*
v voice
'Leave a message'
c. *Kofi da kɔ´.*
Kofi v fist
'Kofi threw a blow/fought.'
d. *Kofi da tu.*
Kofi v gun
'Kofi fired a gun.'

14 In this sentence 'Komi' is not a second direct object. Essegbey (1999) calls this kind of structure three place constructions, which involves an (obligatory) object and a location. Specifically this verb *ko* yields states of affairs in which someone uses the limbs to cause something to move swiftly to a location. Also other verbs in this list can be three place constructions. The discussion on these structures does not concern us here.

To sum up, Essegbey proposes a de-compositional analysis of Ewe VOCs. He defends the idea that the verbs in VOCs transitively behave as canonical transitive verbs followed by their complements. He shows that each of these verbs does have an invariant meaning that is "generic", in the sense that it needs to be further specified by a complement.

3 VOCs in Mandarin

3.1 Overview of the previous literature on VOCs

The status of Mandarin VOCs is a much debated issue in Chinese linguistics literature. However, to my knowledge a systematic and comprehensive classification is still missing. In previous studies, many authors have investigated whether VOCs are true compounds or not. Chao (1968) proposes a set of criteria to identify compounds in Mandarin (for a similar proposal see also Lu (1964)): (i) part of the item is neutral-toned; (ii) part of the item is a bound form; (iii) the parts are inseparable from each other (see also Zhao (1984)); (iv) the internal structure is exocentric; (v) the meaning of the whole is not derived compositionally from the meaning of its parts.[15] The criteria proposed by Chao aim to be valid means to define as compounds (or not) any type of combination of two morphemes in Chinese. He claims that, if a bi-morphemic combination meets one of the criteria above, is considered a compound in Modern Chinese. Many authors (Feng 1998,[16] Li and Thompson 1981, Huang 1984) criticize Chao's criteria.

Li and Thompson (1981) show that the application of Chao's criteria reveals that VOCs do not form a uniform group with respect to the properties stated by Chao. As for the separation criteria in (iii) above, Li and Thompson illustrate that there is no general principle to tell us which Mandarin VOCs can undergo what sort of separation process. The inseparability of the constituents varies among different VOCs and must be learned individually for each compound. The authors also note that VOCs cannot take an additional direct object, and this applies not only to those VOCs that function as intransitive verbs, but also to those that have what might appear to a speaker of English a transitive-like meaning. What would

15 Chao's last criterion in (v) is semantic in nature. More precisely, it is based on the observation that in many cases the meaning of a VOCs cannot be understood from the meanings of its components and that the VOCs must therefore be listed in the lexicon. The "semantic approach" has been proposed in previous studies by Chinese scholars such as Lin (1953: 6), Yong 1957: 67, Zhong (1955: 41–42).

16 I will extensively illustrate Feng's proposal for compounds in Classical Chinese in Section 5.

be the direct object of English equivalents of these combinations appears in Mandarin either as benefactive phrase (introduced by *gěi* 'give to, to') or in a co-verb phrase. However, later in the discussion the authors note that actually there are some VOCs with transitive meaning that take a direct object.

As I will show in detail in this article, such a test distinguishes different types of VOCs, which reflect different degrees of lexicalization. In particular, Huang (1984) shows that Chao's criteria can be reduced to one single criterion, the Lexical Integrity Hypothesis (LIH).[17] Huang (1984) calls the Mandarin Obligatory Complement Verbs and their obligatory objects, "verb-object compounds". By applying the LIH and testing the rule of lexicalization,[18] he investigates whether verb-object compounds are words or phrases. He identifies three groups of verb-object compounds on the basis of their "degree" of lexicalization. In other words, he argues that the process of word formation has affected various verb-object compounds at various degrees. The first group encompasses the verb-object combinations that are completely lexicalized. They are truly inseparable compounds, as shown by their complete inseparability and their ability to take an object (which is a test first proposed by Chao (1968) and which I will use later among my criteria to classify VOCs), like *zhùyì* (inject-meaning) 'pay attention'. The second group includes verb-object combinations that have the ability of taking an additional object, but are separable when they do not take such an object, like *dān-xīn* (carry-heart) 'worry'. They are not compounds but "inherent phrases" specified in the lexicon as idioms, which undergo the lexicalization process and become compounds under certain syntactic environments. In the third group Huang puts verb-object combinations that are phrases not specified in the lexicon.[19] They can be separated in a number of ways and are semantically understood as transitive or intransitive, but cannot take an outer object or be modified by a duration or frequency adverbial without the verb undergoing reduplication, like *kāi dāo* (open-knife) 'operate' and *tiào wǔ* (jump-dance) 'dance'. The VOCs of this group are not listed in the lexicon as compounds and they are unable to undergo lexicalization.

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17 The locution "lexical integrity" refers to the hypothesis that information regarding the internal structure of words (or lexical categories) is often inaccessible to rules that apply in syntax to phrases (or phrases categories). This hypothesis is in given in (i), following Jackendoff (1972):

(i) "The LIH: No phrase-level rule may affect a proper subpart of a word." (Huang 1984: 60)

18 "Lexicalization . . . has the effect of regularizing a more complex structure into a simpler one: making a simple word out of a phrase." (Huang 1984: 71).

19 In the literature, this class appears to include a majority of what are listed as V-O compounds (cf. Chao 1968; Lu 1964; Li and Thompson 1981).

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In agreement with Huang's proposal, also Paul (1988: chapter 2) rejects the idea that items like *kāi-dāo* (open-knife) 'operate' are compounds. For Paul, the verb-object combinations in Huang's last group should be analyzed as phrases.

All the authors mentioned above analyze both VOCs with dummy verbs and VOCs with dummy objects. On the other hand, Cheng and Sybesma (1998) concentrate only on one group of VOCs, namely, VOCs whose object does not contribute much to the meaning of the constructions, such as *pǎo bù* (run-step) 'walk' and *chī fàn* (eat-rice) 'eat'. They claim that these verbs are similar, that is both types of verbs can be used transitively to yield a generic activity reading, in the sense that the action denoted by the verbs is not applied to any specific object: the object is not interpreted as referential, but simply as prototypical. However, they point out that these verbs are different in that, in the intransitive reading, *chī* 'eat' requires the object *fàn* 'rice' to be there, while the object *bù* 'step' is optional with *pǎo* 'run'. *Pǎo* used alone shifts to an ergative interpretation.[20] Moreover, on the basis of Hale and Keyser's (1993, 1998) work, the authors propose that the underlying representation of *pǎo bù* corresponds to a different class of unergative verbs, distinct from the *laugh* class, (i.e. denominal verbs). What is relevant for our discussion here is that Cheng and Sybesma suggest that it is possible to distinguish some verbs in VOCs with and without the overt object on the basis of their syntactic and semantic behavior, and that it is possible to trace them back to different underlying structures.

Lin (2001) comparing light verbs in Mandarin and Japanese, investigates also verbs like *dǎ diànhuà* (hit-telephone) 'to telephone'. Lin (2001) proposes that verbs like *dǎ* are overt light verbs that can take a noun to form a predicative expression. For Lin (2001), *dǎ* cannot assign any theta role to its arguments, thus it is plausible to postulate independent heads responsible for the different thematic relations (see also Huang 1997).[21]

More recent work on VOCs has been done by Tieu (2007, 2008a, 2008b). Her research mainly focuses on the interpretation of the complement (a generic object) of VOCs. She proposes two possible analyses to explain the existence of the obligatory object in the VOCs (Tieu 2007). The first analysis is that the generic object is inserted simply to lend phonological weight. Another possibility is that it is simply preferable not to have the sentence-final stress fall on the verb; the generic object is inserted to fulfill this function.

20 I will illustrate this point in detail in Section 3.1.3.

21 I will discuss Lin's proposal more in detail in Section 4.4, pointing out similarities and differences with respect to the analysis I propose in this paper.

3.2 Critical view of the previous literature on VOCs

First, Chao (1968) and Li and Thompson's (1981) studies only aim at distinguishing compound VOCs from non-compounds. On the other hand, Paul (1988) proposes that all the VOCs should be analyzed as phrases. In Chao, Li and Thompson, and Paul's analysis, Mandarin VOCs are regarded as a homogenous group of verbs, without taking into consideration different types of syntactic and semantic relations between verb and object at a finer level of detail. As Li and Thompson (1981) note, VOCs do not constitute a~~n~~ homogenous class. For instance, the idiomaticity and separability of the VOCs cannot be predicted on regular basis. Some VOCs are highly idiomatic; some, less idiomatic; some, not very idiomatic. Similarly, some verb-object compounds are completely inseparable; some are separable to a certain degree; others are almost like a regular verb-plus-object phrase in terms of separability.

I think that also the classification made by Huang is still not sufficient. In analyzing Mandarin VOCs, he takes into consideration all the verb-object compounds, without looking at the lexical nature of the object. In many cases, in fact, the object is not such as a nominal item, but a verb or an adjective. In my proposal, I look only at those ~~verb-object compounds~~ whose object can be used exclusively as a noun, thus making the lexical relation between the verb and the object consistent across different VOCs. By applying my criteria, I will also show that these verbs fall out into different groups.

As for the analysis proposed by Cheng and Sybesma (1998), I think that the topic requires further investigation for the following two reasons: firstly, the authors concentrate mainly on the interpretation of empty/dummy objects in Mandarin VOCs, and, secondly, they limit their attention to only one verb, that is *pǎo bù* 'run'.

On the other hand, Lin (2001) analyzes only VOCs with dummy verbs such as *dǎ diànhuà* (hit-telephone) 'to phone'. Lin proposes an interesting analysis of dummy verbs like *dǎ* as light verbs. I will adopt Lin's idea in considering Mandarin dummy verbs as light verbs, however I will argue for a different syntactic structure that accounts for both Mandarin and Ewe dummy verbs.

Finally, Tieu's analysis is also limited. In her work, she does not consider the various properties that distinguish different types of VOCs. Her analysis of the interpretation of the object in these constructions generally considers the object to be a dummy element, that is, an object that does not contribute to the meaning of the whole construction. In my analysis, I show that in the verb-object constructions like *dǎ pēntì* (hit-sneeze) 'sneeze', it is the object that requires the presence of a verb with a light semantics in order to be verbalized. Moreover, Tieu's idea that the generic object is inserted simply to lend phonological weight is too

sketchy and it does not take into account several previous studies on the development of Mandarin word-formation (Huang 1984, Wang 1998, Feng 1998, Packard 2000, a.o.). In this paper, I will attempt a diachronic analysis to account for the development of different types of VOCs in Modern Chinese.

Last, but not least, none of the authors mentioned above proposes a syntactic analysis to explain the semantic and syntactic behavior that differentiates the distinct groups of VOCs.

My original contribution, as compared to previous analyses of Mandarin VOCs, will be: (i) a proposal for a new set of criteria distinguishing different subclasses of VOCs, with as a consequence: (ii) a finer, systematic and comprehensive classification of Mandarin VOCs; (iii) the analysis of a wide range of data including both VOCs in which the dummy element is the verb and cases in which the dummy part is the object; (iv) a comparison between Mandarin VOCs with VOCs in Ewe; the comparison is interesting because these two languages are geographically and genetically wide apart from one another, but they are both regarded as "analytic"; (v) a syntactic analysis of the types of "transitivity" expressed by the different groups of VOCs; (vi) a discussion of the analyticity of Ewe and Mandarin from a diachronic perspective.

3.3 Mandarin VOCs: criteria for a new classification

As in the Ewe VOCs illustrated above, the objects of the VOCs are bare nouns and at first sight they behave syntactically like canonical objects of transitive verbs (see Cheng and Sybesma 1998). However, I will show that the behavior of the object in the VOCs is not always consistent. In this investigation, I analyze 32 Mandarin VOCs and only cases in which the noun is bare.

Verb-object constructions represent a much-debated issue in the literature, since they are usually ambiguous between being compounds and phrases. As illustrated in Section 3.1 above, Chao (1968), Li and Thompson (1981), Huang (1984), Chi (1985), Packard (2000), among others, have proposed different criteria to distinguish between verb-object compounds and phrases: a lexicalized or specialized meaning, the inseparability of the constituents, whether one constituent is a bound root, whether the construction is exocentric, the ability to take an extra object. I apply some of the tests previously proposed in the literature for Mandarin compounds and I propose further tests that reveal the syntactic and interpretative differences between the different types of VOCs. The results of the tests suggest the existence of four distinct groups of VOCs.

The first three tests check whether the VOCs are "true" compounds or not. I will start with the two most common tests proposed in the literature: if the object

cannot be topicalized (test 1) and if the VOC can take an additional object (test 2), then it means that the verb and the object cannot be interpreted as separated and they form a true compound.

As an anonymous reviewer suggested, there are other two alternative ways to test the separability of verb and object: the verb copying test (test 3) and the reduplication test (test 4). The verb copying construction is a good test to tell the difference between a true VOC as compound and an ~~a~~ VOC as phrase. A VOC is a phrase when it is followed by a verbal complement, such as a durational complement like *sān ge xiǎoshí* (three-CL-hour) 'three hours' (see example (25)[22]), the copying of the verb is obligatory. However this copying construction is not permitted when the concerned VOC is a "true compound" as in (26).[23]

(25) *Tā chàng gē chāng le sān ge xiǎoshí.*
He sing song sing ASP three CL hours
'She have been singing for three hours.'

(26) **Zhāngsān, nǐ dé zuì dé le sān tiān.*
Zhangsan, you obtain guilty obtain PERF three days
Intended meaning: "As for Zhangsan, you offended (him) three days ago."

Another interesting test to establish whether such VOCs are compounds is the reduplication pattern of disyllabic verbs (test 4), which is ABAB for lexicalized forms and AAB for non lexicalized form:

(27) *guān-xīn* (concern-heart) 'be concerned about'
→ *guānxīn-guānxīn*;

(28) *sàn-xīn* (break up-heart) 'seek distraction/relaxation; be distracted'
→ *sàn san-xīn*.

---

22 I owe the examples (25) and (26) to an anonymous reviewer.

23 An anonymous reviewer notices that another construction with the durational complement is in (i), where the object must be put after the durational complement. This is true also for separable verb-object "compounds", while not for lexicalized verb-object compounds. Also this test, without verb copying construction, seems to work for distinguishing lexicalized vs. not lexicalized forms.

(i) *Tā chàng le sān ge xiǎoshí gē.*
He sing asp three cl hour song
'He have been singing for three hours.'

The results of tests 1–4 show whether a VOC form a compound, or the object behaves syntactically like an object of a canonical transitive verb.

Test 5 reveals whether the object of a VOC can appear in the *bǎ* construction. This test highlights the syntactic relation between the verb and the object. The *bǎ* construction is perhaps one of the most discussed topics in Chinese linguistics (Chao 1968; Li and Thompson 1981; Huang 1982; Li 1990; Travis 1984; Sybesma 1999 among many others) and it is associated with a number of semantic and syntactic constraints. In its canonical form, the *bǎ* construction is formed from a subject-verb-object sentence by preposing the object into the preverbal position, where it is marked by *bǎ*.[24]

(29) a. *Tā chī le píngguǒ le.*
He eat ASP apple FP
'He ate apples.'
b. *Tā bǎ píngguǒ chī le.*
He BA apple eat ASP
'He ate the apple~~s~~(s).'

One of the conditions for the use of *bǎ*-plus-object highlighted in the literature is the high transitivity of the verb, with a patient object that undergoes some kind of change. In the case of *pǎo* 'run' or *zǒu* 'walk', we have a generic action with only one participant: if they take an object, it is not a patient but rather a locative. Thus the ungrammaticality depends on the type of verb. If the object cannot appear in the *bǎ* construction, it is not a direct patient object but a different type of complement, and thus does not satisfy one of the requirements for the use of *bǎ*.

In other words, the *bǎ* test shows whether the relation between verb and object corresponds to that between a verb and a patient, which is considered as the prototypical relation between a verb and its object: "To speak of verb-object phrases reflects the intuition that the post-verbal position, i.e. the object position,

24 The preverbal position changes the information status and the referential properties of the object NP and the aspectual value of the clause (cf. (29a) with (29b)): In (29a) the object is underspecified with respect to definiteness or specificity, while in (29b) it obligatorily receives a definite or specific interpretation. The sentence with the *bǎ* construction in (29b) clearly indicates that the apple is eaten and finished, while (29a) only indicates that the action of eating happened and was completed, but it is unclear whether the apples are finished or not. The possibility of the object of a VOC to appear in the *bǎ* construction reveals that the object can be referential, that is can be interpreted as definite and specific.

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is not limited to the "patient" role." (Paul 1988: 13). In Section 4, I will propose a syntactic structure for each group of VOCs, to account for the distinct thematic relations between a verb and its object.

The last two tests clarify the semantic interpretation and the roles of verb and object within the VOC. Some verbs of VOCs can occur without an overt object (test 6), or can occur with an object (bare noun) different from the prototypical one (test 7). When the verb in a VOC can be used alone, it always maintains its original interpretation: in these cases, it is the object in the VOC that is the "dummy part". On the contrary, if the verb is not interpretable without an overt object (or at least, the object has been mentioned in the immediate previous discourse), then it is verb that is analyzed as the "dummy part" of the construction.[25]

Finally, I wish to point out that I will not apply the separability test proposed by the authors mentioned above, according to which, if the object cannot be divided by the verb with an aspectual marker, then it is a compound. As a reviewer pointed out, this test is not a valid test since the inseparability of the Mandarin constituents varies among verb-object compounds. As Li and Thompson (1981) show, there is no a general principle to tell us which verb-object compounds can undergo what sort of separation process. They add also that the separability of each verb-object compound will have to be learned individually. For instance, in a VOC such as *zhù-yì* (inject-meaning) 'pay attention', on one hand the object can never be separated by the verb: no aspectual can be inserted between the verb and the object (30). On the other hand, an adjectival determiner can be easily inserted between the verb and object (see example (31)):

(30) a. **Lǐsì zhù le yì le.*
Lisi inject ASP attention FP
b. *Lǐsì zhù yì le.*
Lisi inject attention FP
'Lisi paid attention.'

25 One could point out that the peculiar behavior of Mandarin VOCs derives from the fact that they are idioms. However, it has to be stressed that Chinese idiomatic expressions have much more freedom than idiomatic expressions in English (Paul 1988: 12). As Huang (1984) points out, idioms are not necessarily words but phrases. For this type of verbs the meaning is idiomatic even when the constituents are taken apart, and the constituents are separable even when one of them is a bound root, which normally cannot occupy a syntactic slot. Importantly, Li and Thompson (1981) claim that when a compound is completely inseparable, this is usually highly idiomatic and that the idiomaticity of compounds is always a matter of degree.

(31) *Qǐng nǐmen zhù diǎn yì, nǐmen shuōhuà tài dàshēng le!*[26]
Please you pay little attention you speak too loudly
FP
'Please pay a little attention! You speak too loudly!'

3.3.1 Group 1

The VOCs in the first group correspond to those that have been analyzed as true compounds in Huang's (1984) classification.

(32) a. *Zhù yì*
Inject meaning
'Pay attention'
b. *Zhù mù*
Inject eye
'Fix one's eyes on'
c. *Chū bǎn*
Go out edition
'Publish'
d. *Zhǎ yǎn*
Blink eye
'Blink'
e. *Dé zuì*
Obtain guilt
'Offend'
f. *Guān xīn*
Concern heart
'Be concerned about'

The application of the criteria I proposed, confirms the hypothesis formulated by Huang (1984): these VOCs underwent a process of lexicalization becoming true compounds. I take *zhùyì* 'pay attention' to exemplify the results of the diagnostic tests. The behavior of the other verb-object pairs belonging to this group is consistent with it. The first four tests show that the object of this group of VOCs does not behave syntactically as an object of a canonical transitive verb. The object

26 I owe this example to an anonymous reviewer.

cannot be fronted to the beginning of the sentence (test 1) (see example (33)). The VOCs of this group can take an additional direct object (test 2), as shown in the example (34). When followed by a verbal complement, the copying construction is not licensed (test 3) (see example 35)), and the~~ir~~ reduplication pattern (test 4) is ABAB (see example (36)).

(33) **Yì, nǐ yào zhù le!*
Attention you have- inject FP

(34) *Zhùyì nǐ de wǔbù.*
Pay attention you DE step
'Mind your step.'

(35) a. **Tā zhǐ zhùyì (*zhù) le dì yī ge xiǎoshí,*
He only pay attention PERF ORD.N. one CL hour
~~b.~~ *ránhòu tā jiù bù guānxīn le.*
afterwards he then not be concerned FP
'He paid attention only for the first hour, and then he didn't care.'

(36) a. *Zhùyì zhùyì*
b. **Zhùzhu yì*

On the basis of the result of the first tests, we expect that the object of this kind of VOCs cannot appear in *bǎ* constructions (test 5), as shown in (37). This fact also indicates that this object can never be interpreted as referential.

(37) **Nǐ yǒu kǎoshì, nǐ yào bǎ yì zhù le.*
You have exam you have to BA attention inject FP

The verbs of VOCs in the first group can appear alone (test 6), without the object, but their meaning is different: for example, the verb *zhù*, without the object *yì* 'attention' can be interpreted as 'to pour into', 'concentrate', 'inject'. Moreover, if the object of this verb is replaced with another (bare) noun (test 7), the verb is interpreted as with a different meaning:

(38) *Zhù cè*[27]
Record booklet
'Register'

27 Note that *zhùcè* 'register' is listed as a separable verb-object compound.

This type of verb-object pairs is not found in Ewe, that is, Ewe (and the other Kwa languages) does not have VOCs turned into "true compounds". I will discuss this difference between the two languages in Sections 4 and 5.

3.3.2 Group 2

I will refer the objects of the VOCs in this group as "prototypical"[28] or generic (see examples (39h) and (39i))

(39) a. *Chī fàn*
Eat rice
'Eat'
b. *Kàn shū*
Read book
'Read'
c. *Niàn shū*
Study book
'Study'
d. *Hē shuǐ*
Drink water
'Drink'
e. *Shuō huà*
Speak speech
'Speak'
f. *Tīng huà*
Listen speech
'Obey'
g. *Bāo pí*
Peel skin
'Peel'
h. *Shā rén*
Kill person
'Kill'

28 Differently from cognate objects, prototypical objects do not need to have the same meaning as the verb or to be morphologically related to the verb. I consider an object "prototypical", an object that is often semantically associated to a certain verb. For a discussion on objects as prototypical see Section 4.2.

i. *Tiào wǔ*
Jump dance
'Dance'

Differently from group 1, the lexicalization process did not affect the VOCs in this group. By applying my criteria, I show that the verb and the complement are syntactically two distinct and independent elements (see also Cheng and Sybesma 1998): the object can be topicalized (test 1) (as in the example (40)); example (41) shows that a further direct object is unacceptable (test 2); when the verb is followed by a verbal complement the copying of the verb is obligatory (test 3) (see example (42)); the reduplication pattern is AAB (test 4), as shown in (43):

(40) *Fàn, wǒ yǐjīng chī le!*
Rice I already eat FP
'As for eating, I already ate.'

(41) **Wǒ chī fàn miàn le.*
I eat rice noodle FP

(42) *Tā chī fàn *(chī) le sān ge xiǎoshí.*
He eat rice eat ASP three CL hour
'He ate for three hours'

(43) a. *chī-chi fàn*
b. **chīfàn chīfàn*

Test 5 aims to show that the object of this group of VOCs is a patient and can be interpreted referentially, since it can appear in the *bǎ* construction (see example (44)). Importantly, the possibility of the objects in this group of VOCs to appear in the *bǎ* construction reveals the high transitivity of this type of verbs, which make them different from the VOCs in group 4 (see Section 3.1.4).

(44) *Tā bǎ fàn chī wán le.*
He BA rice eat finish FP
'He ate the rice.'

Moreover, notice that in the topicalization test in (40), the object is not interpreted as referential, but the meaning of the object is "incorporated" with the verb.[29] If

29 I discuss this fact in Section 4.

the object is topicalized in a contrastive context, then also in this case the object can be interpreted as definite and specific, as in (45):

(45) *Fàn, wǒ yǐjīng chī le, tāng, hái méi hē wán le.*
Rice I already eat FP soup yet not drink finish FP
'As for the rice, I already ate it, as for the soup, I haven't yet finished it.'

As shown by Cheng and Sybesma (1998), in this type of verb-object pairs the verb can appear without an overt object (test 6) (see example (46)). In that case, however, the meaning of the verb does not change and the object is interpreted as a *pro*, i.e. it is interpreted referentially. The empty object refers to an object previously mentioned in the discourse or it is part of the interlocutors' common ground. The action denoted by the verb does not change even if the prototypical object is substituted with a different bare noun (test 7), as exemplified in (47).

(46) *Wǒ chī le.*
I eat FP
'I ate (it).'

(47) *Wǒ chī miàn le.*
I eat noodles ASP
'I ate noodles.'

From a semantic perspective, this group corresponds to the first two groups of VOCs in Ewe. As shown above, group 1 in Ewe includes those verbs with a specific interpretation that take generic complements. Also in Mandarin, some verbs in VOCs of group 2 can be followed by a generic complement like 'thing' or 'person', maintaining their generic reading:

(48) a. *Chī dōngxi*[30]
Eat thing
'Eat'
b. *Hē dōngxi*
Drink thing
'Drink'

30 In Taiwanese Mandarin *chī dōngxi* (lit. 'eat thing') is distinguished from *chī fàn* (lit. 'eat rice'). *Chī dōngxi* indicates a quick snack, while *chī fàn* means 'have lunch/dinner' or 'have a meal' (Daan van Esch p.c.).

Differently from the majority of the VOCs in Ewe,[31] the object of this type of Mandarin VOCs can be interpreted as referential (and as patient) and it is the dummy part of the VOC.

3.3.3 Group 3

Group 3 includes Mandarin VOCs that I define as "pure intransitive", in the sense that the object is not a patient. I will analyze in detail the role of the object in this group of VOCs in Section 4.

(49) a. *Zǒu lù*
Walk road
'Walk/leave'
b. *Pǎo bù*
Run step
'Run'
c. *Liū bīng*
Skate ice
'Skate'
d. *Huá xuě*
Slip snow
'Ski'
e. *Guàng jiē*
Stroll street
'Stroll'

By applying the test 2, 3, and 4, we obtain the same results of Mandarin VOCs in group 2: the VOCs in group 3 cannot take an additional complement (test 2) (see example (50)); if the object is followed by a verbal complement, copying of the verb is obligatory (test 3) (see example (51)); the reduplication pattern is AAB (test 4), as in (52).

(50) **Zǒu lù cǎodì.*
Walk road grass

31 The dummy verbs in Ewe are those ones in the groups 1 and 2: the verbs associated to cognate objects or to generic objects. Note that also Mandarin has verbs associated to the cognate objects (see footnote 9).

(51) *Tā zǒu lù *(zǒu) le sān ge xiǎoshí.*
He walk road walk ASP three CL hour
'He walked for three hours'

(52) a. *zǒuzou lù*
b. **zǒulù zǒulù*

Topicalization is possible (test 1), but the object can be interpreted non-referentially as in (53a), or referentially, as in (53b)):

(53) a. *Lù, Lǐsì zǒu le hěn jiǔ.*
Road Lisi walk ASP very long.time
'Lisi walked long time.'
b. *Lù, wǒ zǒu le sān cì le, kěshì hǎishì jì*
road I walk ASP three time FP but still remember
de bu tài qīngchu.[32]
DE not too clearly
Lit. 'As for that way, I have tried three times; but I still don't remember it clearly.'

The object of the VOCs in this group cannot appear in the *bǎ* constructions (test 5) (see example (54)) because they do not satisfy the crucial requirement for the use of *bǎ*: differently from the VOCs in group 2, the object of VOCs in group 3 is not a patient. Thus the verbs in the VOCs of this group are not transitive and do not select an object as "patient". Therefore, the *bǎ* test highlights the fact that the thematic relation between the verb and the object in group 3 is different from the thematic relation between the verb and the object in group 2 and group 4 (see Section 3.1.4. below).[33] I argue that such a difference implies a distinct syntactic structure, as I will illustrate in Section 4.

(54) **Lǐsì bǎ lù (dōu) zǒu le hěn jiǔ.*
Lisi BA road all walk ASP very long time

32 I owe this sentence to an anonymous reviewer.

33 As an anonymous reviewer notes, the *bǎ* construction cannot be used with this type of VOCs even with referential objects, e.g. *zhè tiáo lù* (this-cl-road) 'this road':

(i) *Wǒ bǎ zhè tiáo lù zǒu le.*
I BA the CL road walk FP

The test in (55) shows that even if the object is different from the prototypical one (test 6), the verb maintains its meaning:

(55) *Tā zǒu cǎodì.*
She walk grass
'She walks on the grass.'
(Lü 1980, p. 699)

Cheng and Sybesma (1998) define verbs such as *zǒu*, when used in isolation (test 7), as "ergative", translating them with the addition of the English particle *away* (see example (56a)).[34] Actually, the examples in (56) show that if a verb like *zǒu* is in the second position of a serial verb construction (56b), or used alone followed by an adverb linked by the particle *de* (as in (56c)), it maintains also its "original" interpretation 'to walk'.

(56) a. *Lǐsì zǒu le.*
Lisi walk FP
'Lisi went away/left.'
b. *Wǒ xiǎng chūqù zǒu(zǒu).*
I want go out walkwalk
'I want go for a walk.'
c. *Tā zǒu de hěn kuài.*
He walk DE very fast
'He walks pretty fast / He walk away pretty fast.'

This group and the group 3 in Ewe differ from the previous group of Mandarin VOCs (group 2), in the fact that the object can never be referential and does not have the thematic role of patient.

34 Cheng and Sybesma (1998: 10) specifically analyze the ergative interpretation of the verb *pǎo* 'run': "Hoekstra (1990a,b) argues that with verbs of movement and verbs of caused movement (like *hit*), if there is no overtly expressed result denoting predicate, there is an empty predicate, typically meaning 'away': *hit the ball* typically means *hit the ball* ***away***. The same applies to ergative verbs of motion: a sentence with *pǎo* meaning 'escape/run away', like (ia), has the underlying structure as in (ib):

(i) a. *Tāmen pǎo le*
they run FP
'They ran away/escaped'
b. NP_i pǎo $[_{Result\ XP}\ t_i\ X°_{empty}$ 'away'].''

Also in this case, the difference between this type of VOCs in Ewe and in Mandarin lies in the fact that while in Mandarin the dummy element is the object, in Ewe the dummy element is the verb (as in the majority of VOCs in Ewe).

3.3.4 Group 4

The third group of Mandarin VOCs includes "dummy verbs", i.e. verbs with "light semantics". As in group 4 in Ewe, these verbs give rise to different and apparently unrelated interpretations when combined with different complements:[35]

35 Another VOCs in which the object has a fundamental role in the meaning of the verb-object phrase are listed below:

(i) a. *Shàng kè*
Go up class
'Attend/conduct a class'
b. *Shàng chē*
Go up car
'Get on a car'
c. *Shàng cài*
Go up food
'Serve dishes'
d. *Xià kè*
Go down class
'Finish the class'
e. *Xià chē*
Go down car
'Get off a car'
f. *Kāi dāo*
Open/drive knife
'Operate'
g. *Kāi chē*
Open/drive car
'Drive'

As an anonymous reviewer notes, in this type of verb-object combinations the object plays a fundamental role in the interpretation. However, these verbs cannot be considered as pure light/dummy verbs, rather they seem to be polysemous: when they appear with different objects, different meanings are chosen. Moreover, in some cases, the meaning of the verbs in these combinations is literal (see examples (ib) and (ic)).

(57) a. *Dǎ*[36] *qiú*
Hit ball
'Play a ball game'
b. *Dǎ gé*
Hit hiccup
'Hiccup'
c. *Dǎ pēntì*
Hit sneeze
'Sneeze'
d. *Dǎ hūlū*
Hit snoring
'Snore'
e. *Dǎ diànhuà*
Hit telephone
'Make a phone call'
f. *Dǎ shǒudiàn*
Hit torch
'Shine a torch'
g. *Dǎ guānsi*
Hit lawsuit
'Take legal action'
h. *Dǎ hāqiàn*
Hit yawn
'Yawn'
i. *Dǎ dēng*
Hit lamp
'Light the lamp'
j. *Zuò*[37] *mèng*
Do dream
'Dream'

36 *Dǎ* is analyzed in detail as light verb by Lin (2001), for an extensive overview of studies on *dǎ* see the references there. Besides specific meaning as the basic one 'hit, beat, strike', or 'build, create', *dǎ* can be interpreted also as 'play a certain kind of game' and 'express some body action', thus it can be understood as an action in general, specified by the noun.

37 Following Moreno's (1993) observation that cross-linguistically verbs expressing the meaning 'make' tend to undergo gradual generalization of meaning, we could suppose that this is the case of *zuò* 'make' in Chinese too.

k. *Zuò fàn*
Do rice
'Cook'

l. *Zuò gōng*
Do work
'Work'

As for the objects of the Mandarin VOCs in group 2 and group 3, also the objects of VOCs in group 4 behave syntactically as objects of canonical transitive verbs: can be topicalized (test 1) (see example (58)) and cannot take an additional object (test 2) (see example (59)). When the verb is followed by a verbal complement, the copying of the verb is obligatory (test 3) (as shown in (60)), and its reduplication pattern is AAB (see example (61)) (test 4):

(58) *Qiú, Lǐsì měi tiān dǎ.*
ball Lisi every day hit
'As for the ball game, Lisi plays every day.'

(59) **Lǐsì dǎ qiú lánqiú.*
Lisi hit ball basketball

(60) *Lǐsì dǎ qiú *(dǎ) le sān ge xiǎoshí.*
Lisi hit ball hit ASP three CL hour
'Lisi played a ball game for three hours.'

(61) a. *dǎda qiú*
b. **dǎqiú dǎqiú*

As for the objects of the Mandarin group 2, the objects of the group 4 can appear in the *bǎ* construction (test 5). This indicates that these verbs select an object with the role of patient:

(62) *Xiān bǎ qiú dǎ hǎo zài zuò hǎo lǎobǎn.*
first BA ball hit good then do good boss
Lit: 'First play a ball game (with hands) well and then be a good boss.'

As mentioned above, and like the VOCs in Ewe, the Mandarin VOCs in group 4 give rise to different interpretations when in combination with different complements (test 6). For instance, *dǎ* followed by *lánqiú* means 'to play basketball', while followed by *gé* 'hiccup', means 'to hiccup' (cf. (57a–i)). However, the choice of the object is not completely free: these VOCs assume a generic activity reading

only with a certain set of objects. For instance, if the object of the verb *dǎ* is not one of the objects listed in the lexicon that change the meaning of the verb-object as a whole, *dǎ* maintains its "original" transitive meaning 'to hit'. The object is interpreted as a direct object of a canonical transitive reading; that is, the generic activity reading disappears:

(63) *Lǐsì dǎ le wǒ de háizi!*
Lisi hit ASP I DE child
'Lisi hit my child!'

The Mandarin VOCs in group 4 differ from those in group 2 and 3 for in that the "dummy" element is the verb, and not the object. As for the majority of the Ewe VOCs, the verb has a "light semantics. Notice, in fact, that these VOCs cannot be interpreted without an overtly realized object (test 7):

(64) ?*Lǐsì dǎ le.*
Lisi hit FP
?'Lisi hit.'

In order to be correctly interpreted, these VOCs require that the object be mentioned in a immediately previous sentence, but still the verb alone is not fully acceptable:

(65) A: *Shuí dǎ qiú le?*
Who hit ball FP
'Who play a ball game?'
B: ?*Lǐsì dǎ le.*
Lisi hit FP
'Lisi.'

To sum up, VOCs in Mandarin can be divided into four distinct groups. In the first group the VOCs are true compounds, while in the other groups verb and object are syntactically independent of each other. In the second and in the third group the "dummy" element is the object, in one case it is selected by the verb with the theta role of "patient", in the other case it does not have the role of "patient". On the other hand, the "dummy" element in the last group is the verb. The syntactic and semantic properties of the last group of Mandarin VOCs correspond to the properties of the majority of VOCs in Ewe, as summarized in VOCs Table 1 below.

3.4 Interim summary: the results

Table 1 below summarizes the results of the tests applied to VOCs in Ewe and Mandarin.

Table 1[38]

	M. group 1	E. group 1	M. group 2	E. group 2	M. group 3	E. group 3	M. group 4	E. group 4
V Asp O[39]	--	ok	--	ok	--	ok	--	ok
topicalization	no	ok	ok	ok	ok	ok	ok	ok
additional DO	ok	no	no	no	no	no	no	no
nya or bă constructions	no	ok	ok	ok	no	ok	ok	ok
V with a different BN	ok, ≠	ok, ≠	ok, =	ok, =	ok, =	ok, =	ok, ≠	ok, ≠
V without O	ok, ≠	no	ok, =	no	ok, =	no	no	no
V copying	no	--	ok	--	ok	--	ok	--
reduplication	ABAB	--	AAB	--	AAB	--	AAB	--

Table 1 reveals that, on the one hand, Mandarin VOCs can be subdivided in different groups, since each group has a particular semantic reading, and obeys different syntactic constraints. This contrasts with Ewe, where VOCs can be divided in distinct groups on semantic grounds (as proposed by Essegbey and illustrated in Section 2.2), while the syntactic behavior is consistent in all groups. As it emerges from the table above, the syntactic conditions characterizing the majority of Ewe VOCs (group 4) correspond to those of group 4 in Mandarin. In other words, Ewe VOCs behave syntactically like the VOCs characterized by "dummy verbs" in Mandarin, that is, verbs that give rise to different and apparently unrelated interpretations when combined with different complements. In the Section 4 below I will propose a syntactic structure for each group of VOCs both in Mandarin and Ewe.

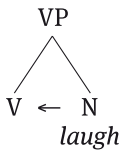
38 -- indicates that the test cannot be applied; ≠ indicates that the interpretation of the verb without object is different from the interpretation of the verb with the object; = indicates that the interpretation of the verb with or without object is the same. The verb copying test and the reduplication test is applicable only to Mandarin.

39 As illustrated in Section 3.1, the insertion of an aspectual marker between verb and object is not a valid "separability" test for Mandarin.

4 Syntax

In Modern Chinese there are only two denominal verbs (like *phone* in English): *xiào* 'laugh' and *kū* 'cry' (Cheng and Sybesma 1998). Denominal verbs were much more numerous and productive in Archaic Chinese (Lin 2001; Mei 1991; Wang 1980). In this paper, I adopt Hale and Keyser's (1993, 1998) account of denominal verbs, which is sketched in (66): the object *laugh* incorporates into an empty verb, which lexicalizes. I propose that denominal verbs are no longer productive in Modern Chinese because the abstract verb involved in denominal verb constructions needs to be overtly realized.[40]

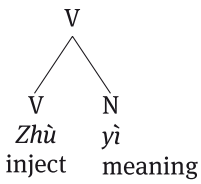
(66)



4.1 Group 1

As shown in Section 3, the Mandarin VOCs in group 1 are compounds,[41] in the sense that they are stored in the lexicon as sub-trees and inserted in syntax as such, as illustrated in the structure (67). Verb and object are syntactically and semantically dependent.

(67)



Chao (1968) defines a compound as a combination of two or more words. The constituents of a compound can be either syntactic words or bound morphemes. According to Packard (2000), the bound roots in Modern Mandarin were free

40 For extensive studies on denominal verbs in Mandarin see Liu (2000), Zhou (2000), Xu (2001), He (2006) and Lee (2008) for Taiwan Southern Min.

41 For an extensive discussion of compounds formation in Chinese see Chao (1968), Packard (2000), Arcodia (2007) and Basciano (2010).

roots[42] in previous stages of the language. Thus, they were words, i.e. items able to independently occupy a syntactic slot. The strong tendency of roots in Mandarin to be bound is related to the disyllabification process discussed in Section 5 below.[43]

4.2 Group 2

Differently from the Mandarin VOCs in group 1, in those in group 2 the object is not inserted with the verb directly from the lexicon. In other words, the verb and object of this group do not form a compound, as proved by their syntactic independence of each other. Verb and object are syntactically independent, but not semantically independent: the meaning of the complex verb-object is unaffected by syntactic operations. The insertion of an aspectual marker between the verb and the object and the topicalization of the object do not change the generic/activity reading of the VOCs.

VOCs raise several issues concerning the canonical treatment of all verb-object sequences as transitive predicates. VOCs disturb such a neat syntax-semantics correspondence, since in other languages these verbs do not require an overt prototypical object. Roberge (2003) hypothesizes that there exists a Transitivity Requirement, whereby an object position is always included in the VP, independently of the lexical choice of verb. The empirical motivation for this hypothesis is the well-documented fact that, for instance, in French and in Italian any transitive verb has the potential to appear without a phonologically realized direct object (like the verb *mangiare* 'eating') (see Larjavaara 2000 on French). Under the Transitivity Requirement, in Indo-European languages the object position is always projected and the verb remains transitive in the syntax.

42 Most of the Mandarin morphemes are lexical and can be either free or bound; they correspond to roots and can be the base of word formation processes (cf. Basciano and Ceccagno 2009).

43 Dai (1990), for instance, analyses the verb *xuéxí*, showing that the frequent usage of roots in compounding processes over time has led many of them to lose their syntactic independence. *Xí* 'practise, review' in Old Mandarin was a free root. It began to be used as the second constituent of compound words, such as *xuéxí* 'study', losing its syntactic independence. In Modern Mandarin the root *xí* is a bound root, unable to occupy a syntactic slot. However, the boundary between free and bound roots is often not clear at all (cf. Chung 2006) and bound roots apparently maintain the characteristics they had when used as free roots; native speakers seem to be able to assign a lexical category to them.

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However, it is necessary to distinguish clearly two types of null object: the "referential" empty object *pro*[44] and the prototypical (or dummy) empty object. The referential empty object *pro* is linked to an element in external argument position or mentioned in a previous discourse.[45] The prototypical object does not have a contextually available referent.[46] More precisely, in Rizzi's (1986: 509–510) terms, the prototypical object interpretation is identified through the verb's lexical semantics. The prototypical null objects gives rise to an activity, rather than an accomplishment reading of the verb.

I argue that the object obligatorily required by the VOCs in Mandarin is the prototypical one. I apply Roberge's proposal that the object projection is always projected both in Mandarin and in Indo-European languages. The difference between the two groups of languages lies in the fact that Mandarin's behavior is more consistent with respect to the presence of the object: in Mandarin the prototypical object must be always realized overtly. As Cheng and Sybesma (1998) propose, when the prototypical object is not realized overtly, the interpretation of the null object is always referential (*pro*).

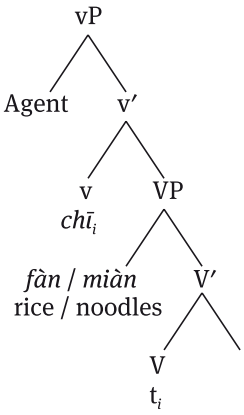
I propose that the syntactic structure of the VOCs in group 2 is the canonical "split VP" structure. It has been proposed that VPs should be split into two distinct projections (Chomsky 1995; Larson 1988, among others): an outer VP shell (known as "little *v*") and an inner VP core. On this view, the VP is a complement of a null causative verb, which is the head of the little *v* projection (which can be thought of, informally, as an invisible counterpart of *make*, a light verb). The null causative verb is affixal in nature and so triggers raising of the verb V to adjoin the causative verb *v* (see Larson 1988; Hale and Keyser 1991, 1993, 1994; Chomsky 1995). More specifically, following Chomsky's (1995) analysis of light verbs, a two-place predicate has the structure along the lines of (58):

44 Rizzi (1986) proposes two possible structures for VP: (i) the implicit argument is present in the syntactic structure but phonologically null, or (ii) the implicit argument is totally absent from the syntactic structure. Whether a language chooses (i) or (ii) is subject to parametric variation. For instance Italian allows (i) whereas English only allows (ii).

45 Cummins and Roberge (2004: 128) propose "three means of recovering the identity or reference of the [non-prototypical] null object: (i) internally, through material in IP; (ii) through discourse, involving referential null objects; and (iii) by binding from the left periphery, i.e. by a topic."

46 Cummins and Roberge (2004) define this kind of object as "indefinite/generic".

(68)



The verb *chī* 'eat' originates as the head V of VP and raises to adjoin a null light verb. The canonical internal object is assigned the internal thematic role (patient) and occupies that specifier position of the VP. I argue that the Mandarin VOCs in group 2 require that the prototypical object is always realized overtly and occupies the same syntactic position as a canonical referential object. This also explains why an additional internal object cannot follow an VOC of this group and its prototypical object: the internal thematic position is already filled by the prototypical object.

Moreover, it is clear that the meaning of these VOCs does not follow from canonical principles of compositionality. That is, the meaning of these VOCs with their prototypical objects does not follow mechanically from the meaning of their subparts and the way they are combined. I argue that the semantic opacity of these complex verb-prototypical object results from the fact that the required complement shows some degree of semantic weakness. On the basic lines of van Geenhoven (1996), McNally (1995), Massam (2001), Cheng (2009), and Badan and Donazzan (2011), I propose that the object of this group of VOCs is selected by the verb, but due to its semantic weakness, it is semantically incorporated into the verb.[47] The hypothesis of semantic incorporation in Mandarin has already been advocated, more or less explicitly, in the literature (Paul 1988; Sybesma 1992; Cheng and Sybesma 1998; Badan and Donazzan 2011, among others). Prototypical (or dummy) objects are non-referential bare nouns that with these verbs do not count compositionally as referential complements of the verb, but merely serve the syntactic function of rendering the VP intransitive. Prototypical objects behave as dummies due to their semantic transparence, which obeys a lexical

47 Ihionu 1992 for Igbo proposes abstract incorporation of the complement into the lexical verb.

restriction. As mentioned in the previous discussion, only a particular NP can be the dummy object of a specific verbal predicate. However, despite the fact that the nouns of the VOCs in groups 2 and 3 are semantically transparent, the VP cannot be considered a mere lexical compound, because, as Paul (1988) and Cheng and Sybesma (1998) also remarked, the NPs are still syntactically active in obeying phrase structure rules (as shown in the previous sections). Following McNally (1995) and van Geenhoven's (1996) analysis of incorporation of weak indefinite NPs, dummy objects would be plain NPs introduced by the verb as part of its meaning, and the lexical restrictions observed for dummy objects would be expected. In contrast, however, Dayal (2003) and Espinal and McNally (2011) consider the NP to be rather a modifier of the V, the modification rule being restricted by lexical selection. Moreover, the existence of lexical restrictions between semantically incorporated NPs and verbal predicates seems to be a theoretically motivated generalization. As Mithun (1984) puts it, morphological incorporation itself happens when the activity or quality designated by the NV compound is viewed as a recognizable, unitary concept, rather than the accidental co-occurrence of some action or state and some entity. Semantic incorporation may be viewed in the same way; in fact, such "prototypicality" of the incorporated nominal with respect to the property expressed by the V has been considered one of the hallmarks of semantic incorporation, as indeed suggested by Carlson (2006).

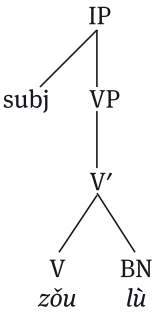
Note that when an object is interpreted as referential, for instance when it appears in the *bǎ*-construction (see example (44)), the VOCs lose their generic/activity reading and are interpreted as a canonical compositional two-place predicate structure (as *chī miàn* 'eat noodles').

4.3 Group 3

This group includes VOCs that have only an intransitive reading. The VOCs in group 2 differ from those in group 3 in two respects: (i) the VOCs of group 2 can appear without the overt dummy object. In this case the VOC is interpreted as having a referential empty object (a *pro*) (as illustrated in the section above); (ii) the object selected by the verb of the VOC in group 2 can appear in the *bǎ*-construction and in contrastive topic constructions, where it is interpreted as a fully referential object. In contrast, the dummy object selected by the verb of the VOC of group 3 cannot appear in the *bǎ*-construction or in contrastive topic constructions. By being never referential complements, their meanings do not figure as objects in the semantic structure of the VP, but rather only help to define the predicate (Moltmann 2004).

To account for the status of the objects of the group 3, I propose two possible analyses. The first one is the hypothesis that the VOCs of the group 3 are the so-called unergative verbs (see Perlmutter 1978; Pullum 1988), or called simply (true) intransitive verbs (Burzio 1981). An unergative verb takes a theta-marked subject and no object (see Chomsky 1981 and subsequent work). Differently from the objects of the VOCs in group 2, the objects of the VOCs of group 3 are not selected as internal thematic arguments, i.e., they are not patients. I argue that these objects simply function as path complements, a sort of incremental themes.[48] More formally, since the verbs of the VOCs in group 3 are unergative (unlike those in group 2), they don't project a little *v*. Thus, they are not causative and don't select a patient. The dummy objects in group 3 are path (or measure)[49] complements selected directly by the lexical verb. On the lines of Hale and Keyser (1993), I argue that the subject of unergative verbs is "external" in the sense that it merges externally from the VP, in a higher position in the IP.

(69)



48 Incremental themes are certain arguments in the predicate that also enter into aspectual composition and partly determine the aspectual class of the predicate (see Tenny 1987; Dowty 1991; Krifka 1992 among others). For instance, for motion predicates of this group, a path expression that specifies source and goal locations can make the predicate telic, as in the examples in (i), while unbounded (or, in English, omitted) path expressions make the predicate atelic as in Chinese VOC case in (ii):

(i) *Lǐsì cóng Shēnzhèn zǒu lù dào Xiānggǎng le!*
Lisi from Shenzhen walk road to Xianggang fp
'Lisi walked from Shenzhen to Hong Kong!'

(ii) *Lǐsì zǒu lù.*
Lisi walk road
'Lisi walks.'

49 Path (Jackendoff 1983; Koopman 2000) is associated with motion verbs. Path is the route followed by the moving object (i.e. Figure) in a motion event with respect to the reference objects (i.e. Ground). The measure (or dimension) component of the Path has to do with the spatial extent property of the Ground (see Chu 2009; Svenonious 2008).

In my second analysis I try to go further and propose a very speculative derivation of the VOCs in group 3.

I sketch my proposal on the lines of Hale and Keyser's (1993) analysis of denominal verbs in English. Hale and Keyser (1993) propose that some English unergative verbs represent by far the simplest class of denominal verbs derived by incorporation: their initial lexical projection is simply that of a verb and a nominal complement. Then, the nominal component (the nominal N head) incorporates into an abstract V with the consequence that only the N component is phonologically realized (as illustrated for the verb *laugh* in the example (66) above). Following the lines of Hale and Keyser's analysis, unergative verbs in English could correspond to the simple VP and its N complement without incorporation in Mandarin. However, Hale and Keyser also discuss more complex denominal verbs called "location" (like *to shelve*) or "locatum" verbs (like *to saddle*). They suppose that the representation of this kind of verbs, for instance *to shelve*, is identical to that of the English verb *put*, as used in such sentences as (70):

(70) *She put her books on the shelf.*
(Hale and Keyser 1993: 4)

Hale and Keyser argue that location and locatum verbs merge as the nominal parts of a PP, then the surface form of the verb is derived by application of cyclic head movements: the first movement incorporates the lower N into the P that governs it, then moves into the verb that governs it, with the final movement incorporating into the matrix verb (as illustrated in (71)). Importantly, each step in this derivation conforms to the Head Movement Constraint (Travis 1984; Baker 1988): at each point, incorporation involves movement of a head into a head that properly governs the moving element.

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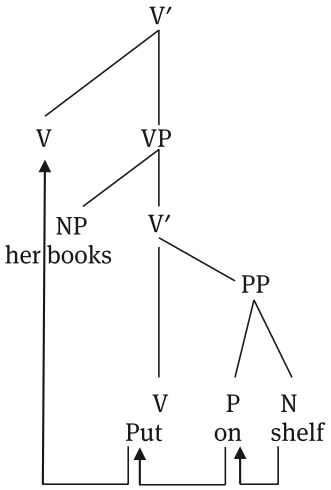
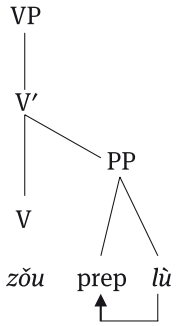


(Hale and Keyser 1993: 5)

Along these lines, I speculate that the dummy objects of the VOCs of group 3 are path complements of an abstract preposition (also on the lines of the analysis of a type of cognate object in Russian by Pereltsvaig (1999)). The abstract preposition acts as a relational head linking the event structure of the V and its incremental theme (Krifka 1992). As for locatum verbs in English, the surface form of the VOCs in group 3 is derived by head movement. However, differently from English, in Mandarin group 3 VOCs only the first application of head movement takes place: the path complement incorporates into the abstract preposition and stops there, since its selecting verb is already overtly expressed. This syntactic movement could explain the fact that the objects of the VOCs in group 3 are never referential: in order to incorporate into the abstract preposition,[50] and obey the Head Movement Constraint (which requires that the moving element is a head and not a fully structured XP), the objects must be bare nouns, that is, simple heads (X°).

50 A prepositional phrase can appear in postverbal position in Modern and Archaic Chinese. In the history of Chinese it seems that the dominant sentential position of PPs gradually moved from postverbal to preverbal position from Early Old Chinese to Early Middle Chinese, and has resulted in stable variation from that time until the present day (see Li and Thompson 1974, 1975).

(72)



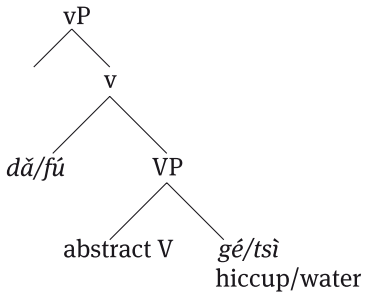
I suggest that a difference between Ewe and Mandarin lies in the fact that Mandarin VOCs can lack a little *v* projection, like in the case of the VOCs in group 3, while Ewe VOCs always need both a little *v* projection and an abstract verb. I discuss in detail this proposal in the following section.

4.4 Group 4

Lin (2001) proposes that both the subject and object arguments of Chinese sentences are not selected by the main verb, but are introduced into the sentence via light verb. Lin proposes that verbs like *dǎ* are overt light verbs that can take a noun to form a predicative expression. As light verbs, *dǎ* cannot assign any theta role to its arguments; this leads to postulate independent heads responsible for the different thematic relations: syntactic light verbs like DO, EXIST, CAUSE, USE, AT, FOR (and others). *Dǎ* then moves up to such a functional head (little *v*) to incorporate with the syntactic light verb, yielding the correct surface order.

I argue that the Mandarin VOCs in group 4 and the large majority of VOCs in Ewe have the same syntactic structure. I apply to these verbs the analysis given by Aboh (2010) for VOCs in Gungbe. Aboh proposes that the verbs in the VOCs in Gungbe are functional verbs. They first merge in little *v* and select for a VP whose head is an empty/abstract verb, i.e., without morpho-phonological shape (on the basic lines of Hale and Keyser 1993, 1998). I apply Aboh's proposal to two verbs of group 3: Mandarin *dǎ gé* 'to hiccup' and Ewe *fú tsì* 'to swim':

(73)



Following Baker (1988), an abstract verb followed by an NP is the relevant configuration for incorporation: as in the analysis of denominal verbs proposed by Hale and Keyser (1993, 1998) illustrated above (see the structure in (66)), the head N incorporates into V. N's movement to V allows the empty V to be lexicalized by the noun. The verb constitutes the head of the little *v* projection and its meaning is derived compositionally from the complex formed by little *v* and the lexicalized abstract verb in VP.

I argue that the VOCs in group 4, both in Mandarin and in Ewe, belong to the same class as denominal verbs in Indo-European languages, but "languages only differ as to whether they involve a functional verb that may first merge in little v that selects for an empty headed VP" (Aboh 2010: 27–28). Denominal verbs in English/Italian involve a noun and a silent functional verb. In ~~Chinese~~ and Ewe there is no V-to-*v* movement because the functional verb is spelled out.

As I mentioned in the previous section, I suggest that a difference between Mandarin and Ewe VOCs could lie in the fact that in Mandarin certain VOCs ~~don't~~ project the little *v* projection, while in Ewe VOCs the little *v* projection always needs to be spelled out, that is, they all have the structure proposed in (73).

5 A brief diachronic view

In this section I suggest that Ewe is at a "more analytical" stage in comparison to Mandarin. I argue that each group of Mandarin VOCs corresponds to a different stage of a lexicalization process of compounds due to Chinese's strong tendency toward dysillabicity. On the contrary, it seems that Ewe VOCs do not represent distinct stages of lexicalization, instead they seem to be part of only one group sharing the same morphological properties.

In the previous sessions, I mentioned different degrees of idiomaticity in meaning of VOCs and different degrees of separability of their constituents ~~(see footnote 24)~~. Li and Thompson (1981) explain such different degrees as due to the fact that Mandarin verb-object compounds are historically formed from verb-

plus-object phrases at some point on a "continuum". That is, "certain verb-plus-object phrases have fused together through time to be compounds either as the verb or the object or both have lost their independent free morpheme status, or as the construction developed idiomatic meaning. Since such fusing processes in a language are never abrupt but are instead gradual, occurring over a long period of time as a verb-plus-object phrase develops into a completely fused word that it is inseparable and completely idiomatic in meaning, different verb-object compounds may be at different points along this path. The result of this historical process at any given time is a continuum." (Li and Thompson 1981: 80).

According to many linguists (Feng 1988, Norman 1988, Wang 1998, Packard 2000, Lin 2001, Shi 2002, among others), the predisposition of Mandarin is the passage from monosyllabism to disyllabism. The inclination of Mandarin to form compounds is analyzed as due to the language's strong tendency toward disyllabicity.

According to Packard (2000: 265), the process of disyllabification started during the Zhou dynasty (1122-256 BC). While before 200 BC disyllabic words accounted for about 20% of the lexicon (at least in the written style), in the modern language, they are above 80% (cf. Shi 2002: 70–72) and the disyllabic word has become the preferred word form. In the literature, several motivations have been proposed to explain the passage from monosyllabism to disyllabism. Feng (1998), investigating the nature of compound words in Classical Chinese,[51] mentions three main accounts given in the literature: the "functional" explanation (Norman 1988; Wang 1998; Lin 2001; Shi 2002), the "social" explanation (Cheng 1981, among others), and the "aesthetic" explanation (Cheng 1981). According to the functional account, the process of disyllabification started to solve the ambiguity of a great number of syllables that had become homophonous as a consequence of phonological erosion. By adding an extra syllable, the ambiguity was resolved. The "social explanation" suggests that the developing complexity of society required a greater number of vocabulary items, thus there was the necessity to develop a greater number of compounds. The "aesthetic explanation" argues for extralinguistic factors as trigger of the development of compounds, that is, as Feng (1998: 219) reports: "Chinese people conceptually prefer a pair of two things, therefore the paired-syllable words compounds developed."

In my opinion, Feng (1998) gives many convincing arguments to criticize the three explanations illustrated above and proposes a very interesting prosodic-based account to explain the increase in disyllabicity during the Han dynasty. According to Feng, disyllabicity in Chinese was triggered by a new prosodic structure

51 With "Classical Chinese", Feng (1998) intends the language from the Warring States period (500BC-200BC) to the Han dynasty (206BC-220AD).

that occurred as a result of a new, simplified syllable structure. More precisely, the development of compounding in Classical Chinese is primarily due to disyllabic foot formation, caused by the syllable structure simplification, that is the loss of the bimoraic feet which occurred from Old Chinese (1000BC) to Middle Chinese. "The loss of bimoraic feet was compensated for by the introduction to disyllabic feet, and disyllabic combinations are therefore produced in sharply increased quantity during and after the phonological change took place." (Feng 1998: 198).

I propose that the different groups of VOCs represent different stages of a process of lexicalization due to the dysillabification process realized at some point of a "continuum". Following Huang (1984), in fact, Mandarin verb-object pairs undergo a (optional) process of lexicalization by which "a verb-one-bar category is reanalyzed as a verb-zero category, namely a phrase becomes a word." (Huang 1984: 70). According to Huang, I defend the idea that the rule of lexicalization can be seen as a synchronic reflex of the historical process by which many compounds have been derived. I argue that the different groups of VOCs represent the effects of this process of word-formation, which has affected various items in various degrees through time.

It is important to note that dysillabicity is independent of compounding. According to Feng (1998), in fact, in order to become compounds a disyllabic phrase must undergo a process of lexicalization through specification of sense. The VOCs in group 1 represent the final stage of the lexicalization process. Group 1, in fact, includes verb-object constructions that underwent a complete process of lexicalization: these items have turned completely into words, becoming true compounds. Group 2 and 3 represent the previous stage of lexicalization with respect to group 1. These VOCs are interpreted as generic actions, but they did not undergo a complete process of lexicalization. For group 2 and 3 the syntactic relation between the verb and the object is still transparent, but the non-referentiality or weak indefiniteness characterizing bare nouns in Mandarin and the process of lexicalization are (possibly) progressively leading towards disyllabic verb compounds. More specifically, the verbs in groups 2 and 3 seem to be at an earlier stage of lexicalization: the dummy element is the object that incorporates into the verb at a semantic level (no syntactic/morphological incorporation). Moreover, notice that the Mandarin verbs in groups 2 and 3 could correspond to compounds formed by a verb and its internal argument (the theme) [V + internal argument N]$_V$.[52] The VOCs can represent a stage of disyllabic prosodic words repeatedly used

52 Mandarin shows a very peculiar behavior as far as headedness is concerned, which is in contrast with the behavior of most languages of the worlds where the position of the head is generally either on the right, or on the left. The characteristics of Mandarin compounding have led different scholars through the years to assume different position of headedness (see Basciano 2010 for an exhaustive summary of the main positions on this issue).

in the language, whose elements in that phrase are fixed and called "idiomatized prosodic words" (Feng 1998). As Feng note, in fact, "only one step further, the idiomatized prosodic words can be lexicalized as compounds . . . that is, compounds are lexicalized idiomatic phrases." (Feng 1998: 238).

I argue that the VOCs in group 4 cannot be analyzed as part of such a lexicalization process, but verbs like *dǎ* are simply light verbs, which need the presence of an object in order to be interpreted. As illustrated in Section 4.4, overt light verbs like *dǎ* can take a noun to form a predicative expression, but cannot assign any theta role to their arguments. Thus, in the literature independent heads have been postulated as responsible for the different thematic relations: *syntactic* light verbs like DO, EXIST, CAUSE, USE, AT, FOR (and others). Verbs like *dǎ* then move up to such a functional head (little *v*) to incorporate with the syntactic light verb, yielding the correct surface order.

As for Ewe, unfortunately we do not have any studies on the historical development of the verb-object combinations. However, the synchronic analysis reveals that all Ewe VOCs correspond to Mandarin group 4, that is it seems that all the verbs in Ewe VOCs are "light". Even if we hypothesize any kind of morphological prosodic development, the verbs in Ewe VOCs seem to belong to the same type of group of verbs whose meaning is "bleached": ~~and~~ even if the verb is syntactically independent from the object, it needs the presence of the object to define its semantic content. One hypothetical motivation for this proposal could be related to the realization of little *v*. In Mandarin it seems that the realization of little *v* for VOCs is optional. When it is not realized, then the VOC can undergo the lexicalization process. On the contrary, in all types of Ewe VOCs the little *v* projection seems to be always realized, thus the verbs in VOCs do not lexicalize and maintain their status of light verbs.

6 Conclusions

The article dealt with VOCs in Ewe and Mandarin. Elaborating on Essegbey's (1999 and subsequent work) classification of VOCs in Ewe, I proposed a new set of criteria for classifying VOCs in Mandarin. I showed that Mandarin VOCs can be assigned to four different groups, providing a systematic and comprehensive classification of verb-object combinations, including verb-objects with a dummy verb. I also provide evidence that VOCs in the two languages cannot be regarded as part of a homogeneous class. Secondly, I compared each group of VOC in Mandarin and Ewe, proposing different syntactic analyses for each group. While the four groups of VOCs in Mandarin correspond to four distinct syntactic structures, those in Ewe can be analyzed as all having the same syntactic derivation. I

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suggested that a structural difference between Mandarin and Ewe VOCs lies in the fact that certain Mandarin VOCs ~~don't~~ project a little *v*, whereas in Ewe VOCs the little *v* projection must always be spelled out overtly. I conclude the paper arguing that Mandarin VOCs are the reflection of different stages of a lexicalization process resulting from a strong tendency to disyllabification. Ewe VOCs, instead, do not undergo this lexicalization process, suggesting that Ewe belongs to a more "analytical" stage than Mandarin.

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