# A Constraint-Based Analysis of the Objects of VO Compounds and Idioms in Chinese 

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Verb-object compounds (VOCs) and idioms have become a topical issue within studies on wordhood and the syntax-semantics interface. Building on our recently published work (Bodomo, Yu and Che 2017), this paper addresses a special form of VO verbal compounds i.e. those in which the VO verbal compound/idiom as a whole takes a further external object. Verb-object compounds are also known as separable verbs in Mandarin Chinese given that they can be separated by intervening items. Due to this fact, there have been major questions about the issue of wordhood in Chinese as they do combine to form a 'word-like unit', but at the same time they exhibit some degree of seperability between the two parts (Chao 1968, Li and Thompson 1981, C.T. Huang 1984, C.R. Huang 1990, O.-S. Her 1999, Bodomo 2004, Zhuang et al. 2013, Che 2014, among others). As a result, the lexical status of Chinese VOCs has long been disputed among linguists. In the following examples, we may consider jian-mian 'to meet' as a lexical word as in (1a), while in (1b), it can appear as a syntactic phrase.

Previous discussions have mainly focused on the criteria that can identify a word in Chinese. This paper, however, investigates the VOC syntactic properties, as well as lexical features in morphology and semantics. First, the object status of the O in a VOC is established by syntactic diagnostics such as topicalization, modification, and question formation. As in example (2), the object of VOCs can be preposed by topicalization to achieve the same effect of emphasis as the feature possessed by a normal object.

Then, there are two well-formedness conditions of morphological structures, i.e. the Anaphoric Island Constraint and the Coordination test, to support the wordhood status of VOCs. Take the Anaphoric Island Constraint for example. VOCs are anaphoric islands as a whole word because it is not possible for the O in the VOC to co-refer with other parts of a sentence as in 3(b), but it is possible when this object is not contained within a word as in 3(c).

Furthermore, semantic tests such as modification and transitivity also suggest that VOCs have unitary lexical semantics. For example, the transitivity of certain VOCs is hard to ascertain as the O cannot be directly interpreted as the second, non-subject of the transitive verb. For example, in the VOC liao-tian 'chat-day', the meaning is non-compositional and the VOC as a whole simply means 'to chat'. Naturally, there is no way to treat the nominal tian as a second participant of the verb.

Through these formal tests, it can be shown that these VOCs are still like single lexical items corroborated by both morphological and semantic evidence, although in certain VOCs, the verb part and the object part are syntactically separable. However, the issue can become more complicated when VO compounds take a further external object, as illustrated in (4), where the VOC chi-doufu 'to flirt with' has an idiomatic meaning instead of a literal meaning as in a canonical SVO sentence, wo xihuan chi doufu 'I like eating toufu'. In this paper, we treat VO idioms as a subtype of VOCs when they have an idiomatic reading.

Within the framework of Lexical Functional Grammar (LFG), there are two works which especially address both lexical discontinuity and object realization of VOCs: C.R. Huang (1990) and O.-S. Her (1999). Noticeably in (5) and (6), Huang treated the N as a co-head with the V of the VP instead of an argument of the V. However, it has been proved (see example (2)) that the O of VOCs possesses syntactic qualities just like a normal object. As we can see in (7), Her's analysis stipulates very specific rules which apply only to certain idioms.

This paper uses the argument-structure within the framework of LFG to explain the ambiguity of VO idioms and VOCs in general. Zhuang et al. (2013) provides us with a new basis to treat the external object of VO compounds and idioms as an OBL. According to them, such objects have to be combined with a preposition (so as to get oblique Cases) or become the possessors of Os and the preposition can be
omitted under the effect of prosody. We thus propose the following analysis for VO idioms like (4), given in (8) and (9).

Note that the OBJ function is placed outside the angled brackets to indicate that it is the athematic syntactic argument under the lexical head chi 'eat'. The constraining equation ( $\uparrow$ OBJ FORM) $=c$ DOUFU simply requires that the value of the FORM attribute of its OBJ function must be 'DOUFU' for the VO idiom to mean 'FLIRT-WITH', while the constraining equation ( $\uparrow$ OBL FORM ANIMATE) $=c+$ specifies that the OBL must be an animate object. The full meaning of the VO idioms depends on the unification of information carried by all these components. The O of the VOCs/VO idioms is a syntactic (grammatical) object but not a 'logical object' as it does not correspond to an argument in predicate argument structure. Thus the semantics of the VO idiom chi-doufu necessitates an AGENT argument only as in (9) which carries out the action of 'flirting-with', while the OBL function should be legitimately treated as a thematic argument. The analysis for VOCs is similar except that the FORM attribute is not necessary.
(1) (a) women mingtian jian-mian.
we tomorrow see-face
'We'll meet tomorrow.'
(b) women jian-guo liang-ci mian.
we see-PERF two-CL face
'We've met twice.'
Topicalization
(2) (a) ta mei chi-fan.
he not eat-meal
'He did not eat (the meal).'
(b) fan ta mei chi.
meal he not eat
'The meal, he did not eat (it).'

## Anaphoric Island Constraint

(3) (a) $w o_{i}$ di-yi-ci he-jiu, $e_{i}$ qiang si le.

I for the first time drink-wine pungent die PERF
'The first time I drank, I choked to death (because of its pungent smell).'
(b) *wo di-yi-ci he-jiu$u_{i}, \quad e_{i}$ qiang si le.

I for the first time drink-wine pungent die PERF
(c) wo dian de zhe bei jiu $\mathrm{b}_{\text {, }} \quad e_{i}$ qiang si le.

I order DE this glass wine pungent die PERF
'I ordered this glass of wine and it was pungent.'
(4) Baoyu chi Qingwen (de) doufu.

Baoyu eat Qingwen DE toufu
'Baoyu flirted with Qingwen.'
Huang's analysis

(6)

$$
\begin{array}{lll}
\text { (a) chi } & \mathrm{V}, & \uparrow \mathrm{VMORF}=\mathrm{CHI} \\
\text { (b) doufu } & \mathrm{N}, & \uparrow \mathrm{PRED}=\text { 'FLIRT-WITH }<(\mathrm{SUBJ})(\mathrm{OBL})>’ \\
& & \uparrow \mathrm{VMORF}=c \mathrm{CHI} \\
& & \uparrow \mathrm{CL}=\mathrm{DE}
\end{array}
$$

Her's analysis
(7) Lexical entry of chi
chi, V PRED 'EAT <ag-SUBJ th-OBJ)>'

IF


THEN [ IDIOM-LINK = chi-doufu (to flirt with) ]
(8)

(9) $c h i<\mathrm{Ag}, \mathrm{Th}\rangle$

## SELECTED REFERENCES

Huang, C.R.1990. A Unification-Based LFG Analysis of Lexical Discontinuity. Linguistics 28, 263-307. Her, O.-S. 1999. Grammatical Representation of Idiom Chunks. In: International Association of Chinese Linguistics 8th Annual Conference, Melbourne, Australia. Zhuang H., Liu Z., Zhang Y. 2013. VO Verbal Compounds and the Realization of Their Objects. In: Ji D., Xiao G. (eds) Chinese Lexical Semantics. CLSW 2012. Lecture Notes in Computer Science, vol 7717. Springer, Berlin, Heidelberg. Bodomo, A., Yu, S. \& Che, D. 2017. Verb-Object Compounds and Idioms in Chinese. Computational and Corpus-based Phraseology: EUROPHRAS 2017. Mitkov, R. (Hrsg.). Springer International Publishing AG, S. 383-396 19 S. (Lecture Notes in Computer Science (LNCS) book series; Band 10596)

