Uttering the Unutterable with *Wh*-Placeholders

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ABSTRACT

Mandarin Chinese has the special placeholder use of *wh*-words to substitute phrases, words or syllables that the speaker cannot utter for some pragmatic reason(s). *Wh*-placeholders are rather common in spoken Mandarin. Typical contexts include failure to recall somebody's name and avoidance of taboo words. The speaker generally presupposes that the intended meaning is salient enough that the hearer(s) should be able to infer deictically in context. Morphologically, a *wh*-placeholder usually consists of *na-ge* (demonstrative-classifier) and a *wh*-word. Syntactically, a *wh*-placeholder can correspond to elements of different categories and positions that are not possible with interrogative, indefinite and universally quantified *wh*-words, e.g. verbs, adjectives, syllables, etc. This paper proposes that a *wh*-placeholder is a metalinguistic demonstrative expression that refers to the intended linguistic expression, as opposed to a regular demonstrative that refers to a real world object. It can flexibly shift to the required semantic type via a silent type-shifting function, resulting in the flexibility of syntactic distribution. The demonstrative *na-ge* is a definite operator that provides the quantification force for the *wh*-word, which gives rise to the definite reference to linguistic objects.

KEYWORDS: placeholder, *wh*-word, demonstrative, metalinguistic analysis, Chinese

1. INTRODUCTION

A placeholder is a "filler" marker that holds a place for some target expression. It signals the substitution of a phrase, word or even sub-word syllable that the speaker cannot utter for some pragmatic reason, i.e. uttering the unutterable. For example,

1

John wants to let Bill know that he just turned off a computer router. However, John cannot recall the name of the device (i.e. "router") when he is talking. John can point at the router and say (1) in Mandarin.[1]

(1) Wo gang guandiao-le   <u>na (ge) shenme</u> le.
     I   just turn.off-PERF DEM CL what   SFP
     'I just turned off that whatchamacallit[2] (= router).'

In the above, the speaker uses *na (ge) shenme* to refer to the router without actually using the word *luyouqi* "router". The focus of this paper is the special use of *wh*-words as part of the placeholder expression[3]. (2) and (3) are additional examples of placeholder expressions with *shei* 'who' and *shenme* 'what' respectively.

(2) <u>Na   ge shei</u> zaoshang lai   zhao-guo ni.
     DEM CL who morning come find-EXP you
     'The whatshisname (= the new colleague whose name the speaker has forgotten) came to look for you this morning.'
(3) Na   ge lao taitai   yijing   <u>na   ge shenme</u>-le.
     DEM CL old lady   already DEM CL what-PERF
     'The old lady has already … you-know-what-ed (= died).'

These "filler" expressions typically consist of three parts, namely, the distal demonstrative *na*, the classifier *ge* and a *wh*-word[4]. Though *shenme* 'what' and *shei*

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[1] Abbreviations used in this paper: ACC = accusative, AOR = aorist, BQ = biased question marker, CL = classifier, COMP = complementizer, DEM = demonstrative marker, DAT = dative, FILL = filler, GEN = genitive, EXP = experiential, INTER = localization, NO = nominalization marker, NOM = nominative, NV = nominal prefix, O = oblique marker, PERF = perfective, PL = plural, PST = past tense, Q = question morpheme, REL = relativizer, TEMP = temporal converb, SFP = sentence final particle, SG = singular, TOP = topic marker

[2] *Whatchamacallit* and *you-know-what* are the closest English equivalents of Chinese *wh*-placeholders. They will be used in most of the free translation of Chinese examples. *Whatchamacallit* is typically used in scenarios where the speaker has forgotten the name of someone or something; *you-know-what* is more often used when the speaker knows the word but does not want to say the target word, e.g. an offensive word.

[3] This paper deals with *wh*-placeholders involving one single *wh*-word only. Some Mandarin speakers and a reviewer offer me examples of *wh*-doublets (where the *wh*-word is doubled or even tripled). I argue that *wh*-doublets are better studied independently, and will not be addressed in this paper. Their differences are discussed in Appendix 1.

[4] These three components are not always obligatory. Please refer to Section 3 for detailed discussion.

'who' are traditionally known as "question words" in Chinese Linguistics, they do not convey any interrogative meaning in (1)—(3). Instead, they "hold the place" for the intended words, i.e. "router", name of the new colleague and "die". Henceforth, I refer to the entire placeholder expression that includes a *wh*-word as "*wh*-placeholders", e.g. *na-ge shenme* and *na-ge shei*. In other words, "*wh*-placeholder" is not limited to the *wh*-word. A *wh*-placeholder is often used when the meaning of the intended expression is recoverable by the interlocutors, for example, by pointing or discourse salience. *Wh*-placeholders are more commonly found in informal conversation, blog articles and fictional writings. Typical reasons for such substitution include failure to recall a word or a name, taboo expressions and circumlocution (see Section 2.1 for the discourse functions).

    Wh-placeholders are also documented in other typologically different languages, including Agul[5], Udi[6] (Ganenkov et al. 2010), Nahavaq[7] (Dimock 2010), and Japanese (Sudo 2008). In these languages, *wh*-placeholders share the same form as interrogative *wh*-words.

(4)   Agul (Ganenkov et al. 2010: 99)

le ʜür-i-n   jaʔ-ani-ʕ   ʕa-ji   fi-pːur, naqʼˬ-ar-ar.
DEM village-O-GEN center-O-INTER INTER:be-PST what-PL grave-PL-PL
'There were WHATs … graves in the center of that village.'

(5)   Udi (Ganenkov et al. 2010: 102)

tac-i   he-tː-u   pːapː-atːan,   beš k:ož-a   iłša
go-AOR what-NO-DAT reach-TEMP   our house-DAT close
ereqːluʁ-a pːapː-atːan …
garden-DAT   reach-TEMP
'I went and when I came to WHAT … when I came to the nut-tree garden near our house…'

(6)   Nahavaq (Dimock 2010: 129)

veti-n   i-noq   re-vwer ni na-havaq ni i-noq   re-vwer ni-kartog.
belly-3SG 3SG.R-like 3PL-say FILL NV-what FILL 3SG.R-lik 3PL-say ni-box
'its belly is kind of like a … what, a … it's kind of like a box.'

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(7) Japanese "*wh*-doublet"[8] (Sudo 2008)

    John-wa "Bill-ga dare-dare-o   aishiteiru" to itta.

    John-TOP "Bill-NOM who-who-ACC love"   COMP said

    'John said "Bill loves X".'

English also has *wh*-placeholder expressions[9], but they take the form of a clause, for example, *whatchamacallit* (='what-you-may-call-it'), *what-d'you-call-it*, *whatshisname* (='what-is-his-name'), *whatshisface* (='what-is-his-face'), *you-know-what*, *you-know-who*, etc. (Read 1964; Channell 1994; Enfield 2003).

(8) Have you got a whatchamacallit? You know… a screwdriver?[10]

(9) Whatshisface told you to remember the party on Friday.[11]

(10) Did you bring any you-know-what? (e.g. 'marijuana')   (Enfield 2003: 106)

(11) I saw John at the club again with you-know-who.   (Enfield 2003: 107)

In English, simple *wh*-words alone like *what* and *who* cannot serve as a placeholder.

The placeholder function of *wh*-words has received limited attention as compared with other *wh*-interpretations such as indefinite *wh* (Cheng 1991; Li 1992; Lin 1998), universally quantified *wh* (Cheng 1991, 1995), and donkey *wh* (Cheng and Huang 1996). *Wh*-placeholders are often referred to as *xuzhi* (literally "pseudo-referential") in the Chinese Linguistics literature (Ding 1961: 166; Lü 1984: 166; Shao 1996: 236)[12]. They highlight the contexts where Chinese *wh*-placeholders are used, e.g. failure to recall someone's name. Studies that mention *wh*-placeholders in other languages usually offer rather basic description (Dimock 2010; Ganenkov et

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[8] Sudo (2008) refers to the special use in Japanese as *wh*-doublets. It is in some ways similar to Chinese *wh*-placeholders. However, he claims that "*wh*-doublets can only appear in place of referring expressions" (p. 619). Further, Japanese *wh*-doublets are restricted to quotative contexts.

[9] English has a large of collection of placeholders derived from *thing* and *wh*-words.

(i) *thing*-series: *thingy, thingummy, thingamabob, thingummytites*, etc.

(ii) *wh*-series: *whatchamacallit, what-d'ye-call-'em, what's-her-face, whatsisname*, etc.

(See the entry in "thing or person whose name is forgotten or unknown" in OED Historical Thesaurus. http://www.oed.com/view/th/class/152068. Accessed on 2014-3-4)

[10] Found in http://www.oxfordadvancedlearnersdictionary.com/dictionary/whatchamacallit+. (Accessed on 2014-3-4).

[11] Found in http://www.urbandictionary.com/define.php?term=whatshisface (Accessed on 2014-3-4).

[12] *Xuzhi* "pseudo-referential use" is not a well-defined notion in the Chinese Linguistics literature. The term often covers *wh*-indefinites and donkey *wh*-construction as well.

al. 2010). The discussion of the syntax and semantics of *wh*-placeholders, in general, is rather limited. The purpose of this paper is to address three research questions.

(A) What is the meaning of the *wh*-placeholder?

(B) Why do Chinese *wh*-placeholders display syntactic distribution rather different from interrogative, indefinite or universally quantified *wh*-words?

(C) What are the semantic contributions of the demonstrative marker and the *wh*-word in a *wh*-placeholder?

The interpretation of *wh*-placeholders is highly contextually dependent. Facilitating contexts will be given wherever appropriate in examples. Many sentences provided are authentic examples obtained from Chinese webpages via Google and Baidu search engines. The grammaticality status of the sentences in this paper is based on eight native speakers of Mandarin[13]. Despite some variation, the judgment of the eight consultants is largely consistent.

2. DISCOURSE SEMANTICS

The meaning of *wh*-placeholders is often characterized with reference to the felicitous discourse contexts in the literature. Section 2.1 describes how the apparently diverse discourse scenarios can be considered to be instantiations of a pragmatic condition. Section 2.2 covers the deictic nature of *wh*-placeholders.

2.1 *Discourse Contexts*

Typical felicitous contexts include momentary lexical retrieval problem, deliberate avoidance of embarrassment or taboo, and so on. At first glance, the felicitous contexts seem rather diverse or even unrelated. However, these discourse scenarios can be summarized by the condition in (12).

(12) "Avoid-Pronouncing-It" (API) condition: A *wh*-placeholder is used when the speaker wants *to avoid uttering the intended linguistic expression* for some pragmatic reason(s).

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[13] The Mandarin speakers are from Guangdong, Jiangxu, Shanxi, Shangdong, Sichuan, Tianjin and Zhejiang.

Five typical contexts are given in Section 2.1.1—2.1.5 to illustrate the use of Chinese *wh*-placeholders. Section 2.1.1—2.1.2 are scenarios where the speaker uses the *wh*-placeholder to substitute a word or an expression that he or she cannot immediately utter. On the other hand, Section 2.1.3—2.1.5 describe scenarios where the speaker knows the target word or expression but choose to withhold it.

2.1.1 *Momentary difficulty with lexical retrieval*
Many descriptions of *wh*-placeholders are associated with the speaker's failure of or momentary difficulty with recalling a name, a word or an expression in real-time conversation (Ding 1961; Lü 1984[14]). Here are some examples.

(13) Ta mai-le   na-ge   shenme le.
     he buy-PERF DEM-CL what   SFP
     'He has bought the whatchamacallit (=tablet).'
(14) Na   ge shei zaoshang lai   zhao-guo ni.
     DEM CL who morning come find-EXP you
     'The whatshisname came to look for you this morning.'
(15) Ao-shenme-de shi xianren Faguo zongtong.
     Hollande   be current France President
     'Ao-something[15]-de is the current President of France.'

The speakers in the above have problem with the name of an object (13), the name of a person (14), or a syllable in someone's name (15). *Wh*-placeholders are used to substitute the intended expressions. The context is typical of English *whatchamacallit* and *whatshisname*.

2.1.2 *Illegible Words*

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[14] Similar description can often been found in the characterization of placeholders in other languages (Enfield 2003; Ganenkov et al. 2010). Oxford English Dictionary has the following definition for *what-d'ye-call-'em | what-d'ye-call-her | what-d'ye-call-him | what-d'ye-call-it | whatchamacallit*: "An appellation for a thing or person whose name the speaker forgets, does not know or wish to mention, or thinks not worth mentioning. Also occas. substituted for any word (e.g. an adjective) which the speaker fails to recall."
(Reference: *what-d'ye-call-'em | what-d'ye-call-her | what-d'ye-call-him | what-d'ye-call-it*, n. Second edition, 1989; online version March 2012. http://www.oed.com/view/Entry/228084. Accessed on 2014-3-4.)
[15] Ao-**lang**-de is intended to be the transliteration of "Hollande" in Mandarin. The *wh*-placeholder replaces the syllable *lang*.

Suppose two Chinese characters in a sentence are blotted with some ink and become illegible. When one has to read out the sentence with the two illegible characters, these two characters can be replaced by the placeholder *shenme*, as in (16).

(16) Ta hui zai shenme shenme biaoyan tan gangqin.
     he will at what   what perform play piano
     'He will have a piano performance at whatchamacallit (= 2 blotted characters for a place).'

2.1.3 *Avoidance of taboo or embarrassment*
A *wh*-placeholder can be used deliberately to substitute taboo words or to avoid embarrassment. In (17), the replacement of the verb 'die' by *na ge shenme* is motivated by the intention to avoid the word for 'die'. *Na ge shenme* softens the explicitness of "die".

(17) Na ge lao taitai yijing na-ge   shenme-le.
     DEM CL old lady   already DEM-CL what-PERF
     'The old lady has already … you-know-what-ed (= died).'

The euphemistic use in (18) and (19) avoids the embarrassment of saying the words with sexual connotation.

(18) Ziji de laopo   he   bieren   yijing shenme-le.[16]
     self DE wife   and other.person already what-PERF
     'His wife and another person have already … you-know-what-ed (=had an affair).'
(19) Nandao nimen   yijing shenme-le   ma ?![17]
     BQ   you.PL already what-PERF SFP
     'You guys have already … you-know-what (=to have sexual relation)?!'

The *wh*-placeholders in (17)—(19) substitute verbal elements, which is a special feature of Chinese placeholder *shenme*. The issue will be discussed in Section 4.

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[16] Found in http://tieba.baidu.com/f?kz=669121488 (Assessed on 2014-3-4)
[17] Found in http://wenxue.xilu.com/dugufeng683/5527/39243?PHPSESSID= 84712cb1fd06c60937c6ea494b096817 (Accessed on 2011-6-10)

2.1.4 *Self-censorship*

Wh-placeholders can be used to withhold the target expressions to avoid being censored. (20) is found on a post on an Internet forum together with a video showing the former Chinese President Hu Jintao singing the popular Chinese folk song *Molihua* ("Jasmine flower") during his visit to Kenya in 2006.

(20) Hu-zhong   chang na   ge shenme shenme hua[18]   …

    Hu-President sing DEM CL what   what   flower   …

    'President Hu sang the you-know-what.'   (*shenme shenme = mo-li* 'jasmine')

Jasmine subsequently became the symbol[19] of the anti-government campaign of civil resistance and revolution sweeping through the Middle-East in 2011. The mentioning of *molihua* on Internet forums in Mainland China could be inconsistent with the government's "social harmony" policy. Blog posts with the word *molihua* could run the risk of being removed. The blogger chose to comply with the rule but indirectly alluded to "jasmine" by "masking" the word using the placeholder *shenme*.

2.1.5 *"Conspiratorial" function*

Enfield (2003) coins the term "conspiratioial" function for English placeholder expressions such as *you-know-WHAT*. Conspirational function refers to scenarios where the speaker deliberately withholds information to prevent the third party from overhearing or understanding the message. He illustrates the scenario with (21).

(21) [After dinner, John says to Mary:]   (Enfield 2003: ex. 14)

    I think it's time to serve the you-know-whats (=preaches).

The use of *you-know-whats* creates a sense of suspension for other guests, and "allow[s] the sight of the peaches themselves to reveal the surprise". The Mandarin *wh*-placeholder counterpart in (22) also works in the same scenario.

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[18] Found in http://www.qmhistory.cn/read.php?tid=36894 (Accessed on 2013-5-6)

[19] "Jasmine Revolution" is a campaign of civil resistance, set off in Tunisia. The Western media dubbed these events the Jasmine Revolution after Tunisia's national flower.

(22) Mary, ni   qu na   na   xie shenme chulai ba!
Mary you go bring DEM CL what   out   SFP
'Mary, please go get the you-know-whats (= peaches).'

Enfield (2003: 105) claims that English placeholder expressions are more transparent with the reason for the use of placeholders. The crucial difference between *what-d'you-call-it* and *you-know-whats* concerns the reason "for not saying the word for the thing in mind". *What-d'you-call-it* highlights the speaker's inability to recall the name, and is not as acceptable in the conspirational context; *you-know-whats* highlights the speaker's certainty of the address's knowledge of the intended entity. Chinese *wh*-placeholders are compatible with both uses.

What is common to the five scenarios above is that the *wh*-placeholder enables the speakers to indirectly allude to the intended linguistic expression without actually uttering it, i.e. the API condition (12). One reviewer and a number of Mandarin speakers remark that the interlocutors do not necessarily know the intended expression. Indeed, while the intended expressions in Section 2.1.3—2.1.5 are obvious to the speaker (and possibly the hearer), the ones in Section 2.1.1—2.1.2 are not so. We will return to this issue in Section 5.1.

2.2 *Deicticity, Anaphoricity and Referentiality*

One may think that *wh*-placeholders are rather similar to pronouns or demonstratives as all of them more or less act as a proxy for another expression. Let us first examine the similarity between *wh*-placeholders and demonstratives. A *wh*-placeholder substitutes a target word or expression salient in context. The semantic value of the *wh*-placeholder is dependent on the speaker's demonstration or intentions. The speaker assumes that the intended hearer has sufficient knowledge to understand the meaning of the *wh*-placeholder. Consider the deictic use[20] of *wh*-placeholders in (23). The reference corresponding to *na ge shenme* is signaled by the speaker's pointing.

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[20] The reference of deictic expressions is pragmatically determined. Deictic expressions, e.g. *he*, *this*, *here*, etc., can be "uttered in the absence of (relevant) previous linguistic context if the extra-linguistic context is sufficient to supply a (more or less) unambiguous interpretation […]" (Sag 1976: 315). They concern the identification of persons, objects, events, and properties in relation to the spatio-temporal context (Lyons 1977; Levinson 1983).
(i)   [a lady walking in] She will be our new CEO.   (deictic pronoun)
(ii)   [with gesture] You know the mouse was this big.   (demonstrative)
(iii)   [Indulgent father feeds baby chocolate bar for dinner]
        Mother: I don't approve ∅.   (null complement anaphora)

9

Na ge shenme acts like a pro-form for 'the router'.

(23) [scenario: speaker points to the router]
    Wo gang guandiao   na   ge   shenme   le.
    I   just turn.off DEM CL   what   SFP
    'I just turned off the whatchamacallit (= router).'

Apart from pointing, the *wh*-placeholder can also be used when the intended expression is contextually salient. Imagine in (24) that the speaker and the hearer are watching the breaking news that reports heavy casualties in a school shooting.

(24) Na   ge qiangshou zhende tai na   ge shenme le.
    DEM CL shooter   really   too DEM CL what   SFP
    'The shooter is really too … whatchamacallit (=brutal).'

Shocked by the terror, the speaker wants to describe the massacre but fails to find an appropriate adjective for the brutality. With the salient intention, he can utter (24).

The *wh*-placeholder can be interpreted anaphorically to some extent. Consider the telephone conversation in (25). The antecedent of *na ge shenme* is the word *luyouqi* 'router', which is linguistic in nature. 5 out of the 8 Mandarin consultants find the anaphoric interpretation of (25) acceptable.

(25) A: Women yao   mai san ge luyouqi   le.
        we   want buy three CL router   SFP
        'We want to buy three routers.'
    B: Wo juede   zhi mai [liang ge <u>na   ge shenme</u>]   jiu gou   le.
        I   think   only buy two CL DEM CL what   then enough SFP
       'I think buying two of these whatchamacallum (= routers) is enough.'

Speaker B is not as technologically sophisticated and forgets the name of the device, i.e. *luyouqi* 'router', even though Speaker A mentions it in the preceding utterance. Speaker B responds by using *liang ge na ge shenme* 'two CL DEM CL what' to mean two routers. The meaning of *na ge shenme* is established by linguistic means as opposed to extra-linguistic means.

Many deictic nominal expressions are also referential[21], in the sense that these expressions establish a relation with a referent (or object) in the world. However, there are clear examples where deictic *wh*-placeholders are not referential in the regular sense. For example, in (25B), the *wh*-placeholder *na ge shenme* is embedded inside the non-specific DP *liang ge na ge shenme*. It expresses the speaker's intention to buy two non-specific routers. Furthermore, there are clear cases where even when the demonstrative marker is used in the *wh*-placeholder, the *wh*-placeholder does not refer to any object at all. Examples can be found in (24), (26) and (27).

(26) Na   ge lao taitai   yijing   na   ge shenme-le .
     DEM CL old lady   already DEM CL what-PERF
     'The old lady has already … you-know-what-ed (= died)!'

(27) Ao-shenme-de shi xianren Faguo zongtong.
     Hollande   be current France President
     'Ao-something-de is the current President of France.'

Na ge shenme acts as proxy for an adjectival predicate, a verbal predicate, and a syllable in (24), (26) and (27) respectively. Predicates and syllables do not denote objects, and are non-referential. In Section 5, I will pursue an analysis that treats a *wh*-placeholder as a demonstrative for linguistic objects, as opposed to regular objects.

3. MORPHOLOGY OF CHINESE *WH*-PLACEHOLDER

3.1 Na *and* ge

In a *wh*-placeholder, the *wh*-word is typically preceded by the distal demonstrative marker *na* and the generic classifier *ge*. The sequence resembles the sequence found in regular demonstrative expressions, e.g. *na ge ren* 'that person' or *na ge diannao* 'that computer'. However, the choice of the demonstrative and the classifier is more restricted in *wh*-placeholders. The proximal demonstrative *zhe* is quite acceptable when the *wh*-placeholder replaces a nominal phrase as in (28) and (29). Unlike *na ge shenme*, *zhe ge shenme* becomes quite bad if it replaces a non-nominal element such as a verb (30) or an adjective (31).

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[21] For example, pronouns (e.g. *he*) and demonstratives (e.g. *this*) are deictic and referential. They refer to humans or objects in the actual world that the interlocutors can identify.

(28) [Speaker handing a tablet to the addressee]

Qing   ni   ba zhe ge shenme gei Zhangsan.

please you BA DEM CL what   to   Zhangsan

'Please give this whatchamacallit to Zhangsan.'

(29) [Speaker holding a photo and pointing at someone in it]

Zhe ge shei shi xin   dangxuan de shizhang.

this CL who be newly elected   DE mayor

'This whatsherface is the newly elected mayor.'

(30) *Na   ge lao taitai   yijing   zhe ge shenme-le .

    DEM CL old lady   already DEM CL what-PERF

'The old lady has already … you-know-what-ed (= died)!'

(31) *Na   ge qiangshou zhende tai   zhe ge shenme le.

    DEM CL shooter   really   too DEM CL what   SFP

'The shooter is really too … whatchamacallit (=brutal).'

However, it is not clear why *zhe* is not as acceptable.

The generic *ge* is generally the preferred classifier in the formation of *wh*-placeholders. When the wh-placeholder substitutes a nominal phrase, the classifier can vary according to the intended referent, as in (32) and (33). When the *wh*-placeholder substitutes a non-nominal element, the generic classifier *ge* is exclusive option, as in (34) and (35).

(32) Qing   ni   ba zhe ben[22]   shenme gei Zhangsan.

please you BA DEM CL what   to   Zhangsan

'Please give this whatchamacallit (= this novel *Moby Dick*) to Zhangsan.'

(33) Qing   ni   ba zhe ping[23]   shenme gei Zhangsan.

please you BA DEM CL   what   to   Zhangsan

'Please give this whatchamacallit (= the bottle of Vodka) to Zhangsan.'

(34) Na   ge lao taitai   yijing   na {✓ge / *tiao / *zhang } shenme-le.

DEM CL old lady   already DEM CL   CL   CL   what-PERF

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[22] *ben* is the classifier for books.

[23] *ping* is the measure classifier for bottles.

(35) Na　ge qiangshou zhende tai na {✓ge / *tiao / *zhang } shenme le.
　　　DEM CL shooter　really　too DEM CL　CL　　CL　　what　SFP

3.2 *Demonstrative + Classifier as an Integral Part of* Wh-*placeholder*

In Section 1, the demonstrative and the classifier (henceforth, DEM+CL) before the
wh-word has been defined as part of the Mandarin *wh*-placeholder. Here I want to
defend for the view that DEM+CL is an integral part of the *wh*-placeholder. There are
at least two possible analyses for DEM+CL. The first route is that the *wh*-placeholder
expression consists of the *wh*-word alone. The substituted part in (2), repeated as (36),
is the head noun 'colleague' only; DEM+CL is just the regular demonstrative marker
for referential purpose in a Chinese DP.

(36) Na　ge shei zaoshang lai　zhao-guo　ni.
　　　DEM CL who morning come find-EXP you
　　　'The whatshisname came to look for you this morning.'

The second possibility is that the entire *wh*-placeholder is made up of DEM+CL and
the *wh*-word, instead of the *wh*-word alone. On this analysis, what is substituted in
(36) is the entire DP 'that colleague'.

　　　At first glance, the two proposals may seem equally plausible for (36). However,
the first proposal runs into problems in other contexts, rendering the second proposal
the more attractive one. The problematic contexts for the first proposal are as follows.
First, DEM+CL+WH can substitute predicates, as in (37)—(39).

(37) Na　ge lao taitai　yijing　na　ge shenme-le.
　　　DEM CL old lady　　already DEM CL what-PERF
　　　'The old lady has already … you-know-what-ed (= died).'
(38) Wo ye yiwei xian kan Kangde tai　na　ge zenme-le yidian.
　　　I　also think first read Kant　too DEM CL how-PERF a.bit
　　　'I also think that it is a bit too whatchamacallit (= ambitious) to read Kant('s
　　　writings) before (reading other writings).
(39) Ni　bu yao　kan de tai　na　ge zenmeyang-le ba.[24]
　　　you not want look DE too DEM CL how-PERF　　SFP

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[24] Found in http://book.qq.com/s/book/0/21/21305/182.shtml (Accessed on 2013-5-6).

'You don't need to take it too whatchamacallit (= seriously).'

What is interesting about these examples is that DEM+CL generally cannot occur in predicate positions when it is used as a regular demonstrative. In (37), *na ge shenme* substitutes the verb *si* 'die' in the relevant context. If the placeholder expression consists of the *wh*-word *shenme* only, the occurrence of *na ge* in these predicate position will go unexplained. The same applies to *na ge zenme* and *na ge zenmeyang*, which replace predicates in (38) and (39). Such use of *na ge* with *zenme/zenmeyang* is not normally found in other kinds of *wh*-constructions. The second proposal seems a more plausible one.

Second, even in nominal phrases, *na ge* can behave very differently from a regular demonstrative. The relevant example is given in (40).

(40) Wo yao mai [liang ge   na   ge shenme].
     I   want buy   two CL DEM CL what
     'I want to buy (non-specific) two of these whatchamacallum (= routers).'

Though *liang ge na ge shenme* is a bit of a mouthful, five Mandarin consultants found (40) good. If the first proposal is adopted, the bracketed DP is rather unusual in three ways. The individual classifier *ge* occurs twice in the same DP, which is generally not permitted in Chinese DP[25]. Also, *na ge* generally entails only singularity, which should give rise to a semantic conflict with *liang ge* 'two'[26]. Yet (40) is good for quite a number of consultants. Numeral-CL is often interpreted as non-specific indefinite, but *na ge* entails definite interpretation. However, the five consultants reported that the bracketed DP is interpreted to mean two (non-specific) routers. The second proposal can more easily explain why the bracketed phrase can come to mean two routers. *Liang ge* does function like the regular numeral and classifier. *Na ge shenme* is the *wh*-placeholder that substitutes *luyouqi* 'router'.

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[25] One reviewer commented that Mandarin allows multiple classifiers in the same DP. However, there is a strict ordering and the type of classifiers in Multiple-Classifier Construction (Liao and Wang 2011). The first classifer must be either individual classifier (ICL) or mass classifier (MCL) and the second one must be kind classifier (KCL), as in (i) and (ii). The co-occurrence of two ICLs is not permitted.
(i)   san   zhi zhe zhong gou   (ii)   san   wan   na liang zhong tang
      three ICL this KCL dog   three MCL that two   KCL soup
      'three dogs of this kind'   'three bowls of soup of the two different kinds'
[26] It is unacceptable to say *liang ge na ge ren* "two CL that CL person".

(41) and (42) are additional authentic examples. In (41), *na sha* "that what" is preceded by *ji ge* "several CL". All eight consultants accepted it.

(41) You xie   guan bao dian ernai,   zhao [ji   ge   <u>na   sha</u>],
     have some official keep some mistress find several CL DEM what
     dou shi hen   pubian   de shiqing le.[27]
     DOU be very common DE matter   SFP
     'Some officials keep some mistresses and find some you-know-what (= prostitutes). These are all very common."

(42) Ni kuai   qu gei wo zuo   [ji   ge   <u>na ge shenme</u>], you jidan de.[28]
     you quick go for I   make several CL DEM CL what   have egg DE
     'Go to make some whatchamacallit (= egg custard tarts) for me! The kind that have egg in it.'

The bracketed DPs are plural and indefinite. Evidently, *ji ge* determines the number and indefiniteness of the entire DP. Based on the above, it seems reasonable to assume that DEM+CL is part of the *wh*-placeholder.

The view that DEM+CL is part of the placeholder expression has an additional merit. It may explain the variant forms of placeholders, namely, *na ge shenme*[29], *shenme* and *na ge*. The meaning of the three variants is so similar that it is hard to tell their semantic difference. DEM+CL[30] alone (without the *wh*-word), in a number of cases, can serve as the placeholder function as well. According to Mandarin speakers' judgment, *na ge* and *na (ge) shenme* are more acceptable and have the widest distribution. *Shenme* (without *na ge*) becomes slightly degraded or less acceptable for many speakers[31].

(43) Acceptability: *na ge*   >   *na (ge) shenme*   >   *shenme*

The relative acceptability of the three expressions can be better revealed when they

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[27] Found in http://sobar.soso.com/t/82581506 (Accessed on 2014-3-4).

[28] Found in http://vip.book.sina.com.cn/chapter/97315/66211.html (Accessed on 2014-3-4)

[29] *Na ge shenme* seems to be even more acceptable than *na shenme*.

[30] Here CL is obligatory. But this is not too surprising because when DEM+CL functions as a regular demonstrative without the head noun, CL is also obligatory.

[31] I want to thank a reviewer for pointing out that some Mandarin speakers do not seem to like bare *wh*'s.

are used to substitute predicates below.

(44) Na   ge lao taitai yijing   { na-ge   shenme / na   ge / shenme }-le.
   DEM CL old lady already { DEM-CL what   / DEM-CL / what   }-PERF
   'The old lady has already … you-know-what-ed (= died).'

	OK	?	*
na-(ge)-shenme	8	0	0
na-ge	8	0	0
shenme	4	3	1

Similar pattern can be noted with *zenme* and *zenmeyang*, as in (45) and (46).

(45) Wo ye yiwei xian kan Kangde tai {na-ge-zenme   / na-ge / zenme}-le yidian.[32]
   I   also think first read Kant   too {DEM-CL-how / DEM-CL / how }-PERF a.bit
   'I also think that it is a bit too whatchamacallit (= ambitious) to read Kant('s writings) before (reading other writings).'

	OK	?	*
na-(ge)-zenme	4	1	3
na-ge	8	0	0
zenme	2	2	4

(46) Ni   bu yao   kan de tai {na-ge-zenmeyang / na-ge   / zenmeyang }-le   ba."
   you not want look DE too {DEM-CL-how   / DEM-CL / how   }-PERF SFP
   'Don't take it too … whatchamacallit (= seriously).'

	OK	?	*
na-(ge)-zenmeyang	3	1	4
na-ge	7	1	0
zenmeyang	5	0	3

Despite some speaker variation, DEM+CL is the most acceptable in the above contexts. DEM+CL+WH is also rather acceptable in many contexts. In comparison, only some speakers could accept the replacement of predicates with a bare WH, but they would still think that DEM+CL and DEM+CL+WH are consistently better than bare WH. The

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[32] Found in http://www.douban.com/group/topic/3029976/ (Accessed on 2014-3-4).

only context where bare WH is more preferred for all speakers is the replacement of syllables, as in (15).

Though the three variants are not identical in distribution and acceptability, there is significant overlap in meaning and distribution. My tentative analysis is that (47i)—(47iii) share the same underlying form, as stated in (48).

(47) (i) DEM CL WH   (ii) DEM CL   (iii) WH

(48) Placeholder expressions (47i)—(47iii) share the same underlying form, made up of two components: (a) DEM+CL, and (b) *wh*-word. When either (a) or (b) part is deleted, (47ii) and (47iii) can be obtained respectively.

(47i) is semantically most transparent. When either component is deleted, the context must be salient enough for the interlocutors to recover the deleted part[33]. I will leave the fuller investigation of the three variants to future research.

3.3 Wh-*word in* Wh-*Placeholder*

Not all can become part of a *wh*-placeholder. This section examines the extent to which interrogative *wh*-expressions can be used as part of the *wh*-placeholder. It will be shown that only a subset of them is good for the placeholder use.

(i) *Shenme* 'what' and *Shei* 'who'

Shenme 'what' is the most unmarked *wh*-word in Mandarin *wh*-placeholders. As shown in many examples before, it can substitute a wide range of elements such as nouns, verbs, adjectives or even non-word syllables (see Section 4 for the exceptional syntactic distribution of *shenme*). *Shei* 'who' is also fairly widely used as a placeholder when the target element is a human.

(49) Wo diao-le   na   ge shenme.
     I   lose-PERF DEM CL what
     'I lost a pair of whatchamacallits (=pliers)'

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[33] This idea is not novel. Consider the regular demonstrative expression *na ge*. It is reasonable to posit that there is a silent head noun in the expression, i.e. [*na ge* ~~NOUN~~]. When the head noun is silent, the context must be salient enough for the interlocutors to recover the meaning.

(50) Na   ge shei gang zou-le.

     DEM CL who just leave-PERF

     'The whatshisname just left.'

(ii) *Shenme* X 'what X' vs. *Na* CL X 'which X'

While both *shenme* 'what' and *na*[34] 'which' can function as a *wh*-determiner in the interrogative use, only *shenme* can combine with a head noun to form a *wh*-placeholder expression[35]. Mandarin speakers find the use of *wh*-determiner *na* as a *wh*-placeholder very bad. Compare the contrast between (51)/(52) and (53)/(54).

(51) Wo zuotian   diao-le   [na   ge shenme gongju].

     I   yesterday lose-PERF DEM CL what   tool

     'I lost the whatchamacallit tool yesterday.'

(52) *Wo zuotian   diao-le   [na   ge   na   ge gongju].

      I   yesterday lose-PERF DEM CL which CL tool

(53) [Na dao shenme cai] hen   la.

     DEM CL what   dish very hot

     'That whatchamacallit dish is very hot.'

(54) *[Na   ge   na   dao cai]   hen la.

      DEM CL which CL dish very hot

Interrogative 'where' and 'when' in Mandarin can be rendered in two ways using *shenme* and *na*, namely, (i) *shenme difang* 'what place' and *shenme shihou* 'what time', and (ii) *na-li* 'which-place' and *na ge shihou* 'which CL time'. Most consultants can accept only *shenme* X (55, 57) as a placeholder, but not *na*-X (56, 58).

(55) Tamen hui zai [na   ge shenme difang] kaihui.

     they   will at   DEM CL what   place   have.meeting

     'They will have a meeting at the whatchamacallit (= the conference room).'

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[34] *Na* 'which' is pronounced with tone 3 while *na* 'that' with tone 4.

[35] Cheng (1991: 115) also notes that only *shenme* 'what' can function as an indefinite *wh*-determiner, but *na* 'which' cannot. The contrast is shown below.

(i)   Hufei mei-you mai {*na-yi-ben-shu   / ✓shenme shu}.

     Hufei have-not buy   which-one-CL-book   what   book

     'Hufei didn't buy any book.'

(56) */?Tamen hui zai [na ge nali] kaihui[36].

  they   will at DEM CL where have.meeting

(57) Zhe ge xiangmu yijing zai [na ge shenme-shihou] zuowan le.

  DEM CL project already at DEM CL what-time   do.finish SFP

  'This project already finished at you-know-when (= the designated deadline).'

(58) *Zhe ge xiangmu yijing zai [na ge na   ge shihou] zuowan le.

  DEM CL project already at DEM CL which CL time do.finish SFP

(iii) *Zenme* and *Zen(me)-yang*

Mandarin has two interrogative how's, namely, *zenme* and *zen(me)-yang* (Tsai 2008)[37].
Six out of the eight consultants accepted (*na ge*) *zenme* and (*na ge*) *zen(me)-yang* as
part of the *wh*-placeholders for verbal predicates[38] and adjectival predicates. Some of
these speakers showed individual preference for *zenme* over *zen(me)-yang* or vice
versa. The two other consultants did not like placeholder *zenme* and *zen(me)-yang* as
much, and could only accept placeholder *zenme* and *zen(me)-yang* occassionally.

(59) Wo ye yiwei xian kan Kangde tai {na-ge-zenme/zenme}-le   yidian.[39]

  I also think first read Kant too {DEM-CL-how/how }-PERF a.bit

  'I also think that it is a bit too whatchamacallit (= ambitious) to read Kant('s
  writings) before (reading other writings).'

(60) Ni bu yao kan de tai {na-ge-zenmeyang/zenmeyang}-le ba.[40]

  you not want look DE too {DEM-CL-how   / how   }-PERF SFP

  'You don't need to take it too … whatchamacallit (= seriously).'

More authentic examples of bare *zenme* and *na ge zen(me)-yang* are shown in
(61)—(63).

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[36] Six out of eight Mandarin consultants rejected *na.li* 'where.place' as a *wh*-placeholder.

[37] I want to thank a reviewer for drawing my attention to the possibility that *zenmeyang* can
also serve as a placeholder.

[38] Unlike English, it is possible to question a VP using *zenme* or *zenmeyang* in Mandarin.

(i) Ta bu fa yi yan; wo keyi [VP zenme/zenmeyang] ne?

  he not utter one word I   can   how / how   Q

  'He didn't say a word; what can I do?'

[39] Found in http://www.douban.com/group/topic/3029976/ (Accessed on 2014-3-4).

[40] Found in http://book.qq.com/s/book/0/21/21305/182.shtml (Accessed on 2013-5-6).

(61) Cunfu   du-guo ji   ben shu, jiu   yiwei ziji hen na ge   zenme de.[41]

village.lady read-EXP several CL book then think self very DEM CL how   SFP

'The village lady has read a few books; and then she thinks that she is very whatchamacallit (= knowledgeable).'   [Accept: 5 out of 8 consultants]

(62) Wo xiang ta genben ye   bu zhidao bei zenme-le ba![42]

I   think he utterly also not know bei how-PERF SFP

'I think he also completely did not know that he had been you-know-what-ed (= fired).'   [Accept: 7 out of 8 consultants]

(63) Yiqian laoshi baoyuan xuexiao tai zenmeyang le; xianzai que juede hen ke'ai.[43]

past   always complain school too how   SFP now however feel very lovely

'In the past, I always complained about my school being very how (= boring); but now I find it very lovely.'   [Accept: 6 out of 8 consultants]

Besides predicative use, a reviewer suggested the possibility of using placeholder *zenme* and *zen(me)-yang* attributively, as in (64).

(64)   Ni shuo Zhangsan {zenme zenme / zen(me)yang zen(me)yang } jingming;

you say Zhangsan how   how   / how   how   shrewd

wo que conglai mei jianshi-guo.

I   but   ever   not experience-EXP

'You said that Zhangsan is very shrewd (in this way and that way), but I have never experienced it before.'

However, I want to argue that (64) is a different kind of *wh*-construction called *wh*-doublets. The construction has to involve reduplication of the *wh*-word, and is limited to the complement clause of verbs like 'say' (see Appendix 1). These restrictions are not found in *wh*-placeholders. In fact, it is no good to say (65).

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[41] Found in http://www.jjwxc.net/onebook.php?novelid=669032 (Accessed on 2014-3-4).

[42] Found in http://macchiatto531.pixnet.net/blog/post/27171232-%E8%8A%B1%E7%94%9F %E4%BB%80%E9%BA%BC%E7%B4%A0%E4%BA%86%EF%BC%9F (Accessed   on 2014-3-4).

[43] Found in   http://www.diyifanwen.com/zuowen/gaozhongxiejingzuowen/045752936.htm (Accessed on 2014-3-4).

(65) *Zhangsan {zenme/zen(me)yang} jingming; wo zuotian yijing   jianshi-guo.

    Zhangsan how / how   shrewd   I yesterday already experience-EXP

    Intended: 'Zhangsan is very shrewd (in this way and that way); I experienced it

    yesterday.'

The unacceptability of (65) suggests that the attributive use of placeholder *zenme /
zen(me)yang* is no good.

(iv) *Duo (shao)* 'how much/many'

Duoshao 'how much/many' are not acceptable as a placeholder for amount, as
illustrated in (66) and (67).

(66) *Zuo ditie dao jichang, wo yao   fu   duoshao   qian.

    sit subway to airport   I   need pay how.much money

    Intended: 'To take the subway to your home, I need to pay you-know-what
    (=$6.5).'

(67) *Yao Ming you duo gao.

    Yao Ming have how tall

    Intended: 'Yao Ming is that tall (=2.3m).'

(v) *Weishenme* 'why' and *Wei-le shenme* 'for what'

Mandarin distinguishes two types of why-questions, i.e. *weishenme* '(reason) why'
and *wei-le shenme* '(purpose) for what'. Tsai (2008) notes that *weishenme* has
"evolved into a reason adverb" while *wei-le shenme* retains the properties of a
preposition phrase[44]. *Shenme* in *weishenme* is no longer a *wh*-word but should be
treated as an integral part of a fixed expression. *Weishenme* cannot function as a
wh-placeholder. (68) is very bad for Mandarin speakers. In contrast, *shenme* in *wei-le
shenme* still has the regular properties of *shenme* 'what'. *Shenme* in purpose 'why'
wei-le shenme in (69) is a very acceptable *wh*-placeholder.

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[44] His claim about *wei-le shenme* being a PP is due to the fact that *wei* is a preposition.
Another good reason is that *wei* can take the perfective marker *le*, which is an important
property of P's (also known as "coverbs") in Mandarin.

(68) *Na   ge weishenme suoyi   tianqi   bu   hao.
     DEM CL WHY   therefore weather not good

     Intended: 'The weather is not good because of the whatchamacallit (= because of the approaching tropical storm).'

(69) Ta shi wei-le   shenme lai   kai   hui.
     he be for-PERF WHAT   come open meeting

     'He came to attend the meeting for … you know what (= for the layoff announcement).'

Table 1 summarizes the acceptability of *wh*-expressions when they acquire the placeholder vs. interrogative interpretation in Mandarin.

Table 1   Interpretation of *wh*-expressions

| | **wh-*expressions* | *Interpretation* | |
		Placeholder	*Interrogative*
i.	*shenme* 'what'	✓	✓
	shei 'who'	✓	✓
ii.	*shenme*-X 'what X'	✓	✓
	nei-CL-X 'which X'	✕	✓
	shenme difang 'what place'	✓	✓
	na-li 'which place'	✕	✓
	shenme shihou 'what time'	✓	✓
	nei ge shihou 'which time'	✕	✓
iii.	*zenme* 'how (instrument)'	✓/?/*	✓
	zen(me)yang 'how (manner)'	✓/?/*	✓
iv.	*duoshao* 'how much/many'	✕	✓
v.	*wei-le shenme* '(purpose) why'	✓	✓
	weishenme '(reason) why'	✕	✓

4. *SYNTACTIC DISTRIBUTION*

Chinese *wh*-placeholders display a number of unique properties that are not shared by *wh*-words of other interpretations, such as *I*nterrogative, *I*ndefinite or *U*niversally quantified (IIU) interpretation (Huang 1982; Cheng 1991; Li 1992; Lin 1998 among others). The discussion below focuses on *shenme* 'what'.

4.1 *Flexible Placeholder* Shenme

On IIU interpretations, *shenme* corresponds to either a DP/CP or a *wh*-determiner. *Shenme* is consistently phrasal.

(70) Ta mai-le   {shenme/shenme rou} ne?   (interrogative *wh*; DP)
    he buy-PERF   what   what meat   Q
    '{What/What meat} did he buy?'

(71) Ni   daodi xiangxin shenme?   (interrogative *wh*; DP/CP)
    you daodi believe   what
    'What the hell do you believe?'

(72) Ta meiyou mai {shenme/shenme rou}   ba.   (indefinite *wh*; DP)
    he have.not buy   what / what   meat SFP
    'He has not bought {anything/any meat}.'

(73) Ta {shenme/shenme rou}   dou   mai-le.   (universally quantified *wh*; DP)
    he   what   shenme meat   DOU buy-PERF
    a. 'He bought {everything/every kind of meat}.'

The generalization explains why one cannot use *shenme* to question a verbal[45] or adjectival predicate. (74) and (75) can only be echo *wh*-questions, but not information-seeking questions.

(74) Ta keyi shenme?   (*shenme* = VP)
    he can   what
    (i) ×'What can he do?'   (interrogative *wh*)
    (ii) ✓ 'He can what?'   (echo *wh*)

(75) Ta shifen shenme?   (*shenme* = adjectival predicate)
    he very   what
    (i) ×'How is he?'   (interrogative *wh*)
    (ii) ✓'He is very what?'   (echo *wh*)

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[45] If a verbal predicate has to be questioned in Chinese, one has to use *zen(me)yang* 'how'.
(i)   Ruguo ta cizhi,   ni   hui zenme(yang) ne?   (interrogative *wh*)
    if   he resign you will how   Q
    'If he resigns, what will you do?'

In contrast, placeholder *shenme* can substitute expressions of a wide range of syntactic categories such as DPs, NPs, CPs, VPs, APs and non-word syllables (Shao and Zhao 1989: 32).

(76) Ruguo [CP <u>shenme</u>] de hua, ni zai gei wo da dianhua ba.[46]   (CP)

  if   what REL HUA, you again to me hit phone SFP

  'If you know that happens, you can call me again.'

(77) Tamen tiantian   dou zai zheli [VP <u>na ge shenme</u>] de.   (VP)

  they   every.day DOU at here DEM CL what   SFP

  'They you-know-what-ed (= to play badminton) here every day.'

(78) Gongniu ye   tai [AP <u>shenme</u>] le ba.[47]   (AP)

  Bulls   also too   what SFP SFP

  '(Chicago) Bulls is too … whatchamacallit (= awesome).'

(79) Nimen Henan de, zhende hen [AP <u>shenme</u>], mei dezui nimen, juran ma ren.[48]

  you.PL Henan DE really very what   not offend you.PL, even curse people

  'You Henan people are really very … whatchamacallit (= unreasonable). We didn't offend you guys, but you cursed us.'

(80) Ao-shenme-de shi xianren Faguo zongtong.   (non-word syllable)

  Ao-what-de   be current France President

  'Ao-something-de is the current President of France.'

When *shenme* occurs in the positions indicated above, it can easily trigger the placeholder reading but not the IIU readings. Placeholder *shenme* clearly has a much wider syntactic distribution than IIU *shenme*.

4.2 *Insensitivity to Phrase vs. Head Distinction*

Though IIU *wh*-words are phrasal, placeholder *shenme* can replace a non-phrasal element such a head or a non-word syllable. In other words, placeholder *shenme* is insensitive to phrase vs. head distinction. In (80), *shenme* replaces the second syllable of the Mandarin transliteration of the name *Hollande*. The syllable by itself does not

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[46] Found in http://milibebe.blogcn.com/articles/%E5%A4%96%E5%85%AC%EF%BC%8C%E4%B8%80%E8%B7%AF%E8%B5%B0%E5%A5%BD.html (Assessed on 2013-5-6).

[47] Found in http://tieba.baidu.com/f?kz=1091194640 (Assessed on 2014-3-4).

[48] Found in http://tieba.baidu.com.cn/f?ct=335544320&lm=0&rn=30&tn=postBrowserN&sc=0&z=996476648&pn=0&word=%BA%D3%C4%CF (Assessed on 2014-3-4).

mean anything and replaces a non-phrasal element. In (81) and (82), *shenme* substitutes the verb (i.e. head) to the exclusion of the verbal perfective marker *–le* and/or the object DP. *Shenme* corresponds to a verb instead of a VP.

(81) Women yijing shenme-le   ta   ji   ci.   (verb; Accept: 7 out of 8)
      we   already what-PERF he several time
      'We've already you-know-what-ed (= beat) him several times.'

(82) Wo zhidou John shenme-le   Amy.   (verb; Accept: 6 out of 8)
      I   know John   what- PERF Amy
      'I know John you-know-what-s (= have a crush on) Amy.'

4.3 *Content Words vs. Functional Words*

Despite the flexibility of placeholder *shenme*, it can only replace content words. It is very bad to use *wh*-placeholders in place of function words, such as coverbs, SFPs, modals, pronouns, etc.[49]

(83) *Ta shenme Luosanji   zhangda.   (coverb)
      he what   Los Angeles grow.up
      Intended: 'He grew up WHAT (= *zai* 'in') Los Angeles.'

(84) *Ta hui lai   kaihui   <u>na   ge shenme</u>?   (SFP)
      he will come have.meeting DEM CL what (= *ne* [question particle])
      Intended: 'Will he come to attend the meeting?'

(85) *Ni   bu shenme zai shiyanshi chi dongxi.   (modal)
      you not what   in   lab   eat thing
      Intended: 'You WHAT(=should) not eat in the lab.'

(86) *Na ge shenme bu yinggai zai shiyanshi chi dongxi.   (pronoun)
      DEM CL what not should   in lab   eat thing
      Intended: 'The WHAT(=you) should not eat in the lab.'

To summarize, placeholder *shenme* clearly displays distribution patterns rather different from IIU *wh*-words concerning (i) syntactic category, (ii) sensitivity to the head vs. phrase distinction, and (iii) the content word requirement.

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[49] I want to thank Anna Szabolsci and Oscar Wong for drawing my attention to this.

5. *METALINGUISTIC ANALYSIS OF PLACEHOLDER EXPRESSIONS*

The goal of this section is to provide an analysis of Chinese *wh*-placeholders to account for the unique properties of *wh*-placeholders. The discussion is divided into two parts. Section 5.1 gives a metalinguistic demonstrative account of *wh*-placeholders (Research Question A and B); Section 5.2 explains how the two morphological components, i.e. DEM+CL and the *wh*-word, contribute to the semantics of the *wh*-placeholder (Research Question C).

5.1 Wh-*Placeholder as a Demonstrative for Linguistic Objects*

This analysis adopts the view that the *wh*-placeholder is treated as a demonstrative expression that refers to some intended linguistic expression. As argued in Section 3.2, DEM+CL should be considered to be part of the *wh*-placeholder. The simplest way to explain the morpho-syntactic makeup of *wh*-placeholders is to assume that *na* functions as a demonstrative marker[50]. This could potentially explain the strong deictic orientation of *wh*-placeholders, which is also a prominent characteristic of demonstratives (see Section 2.2). While a regular demonstrative denotes an object or a human in the world (i.e. type *e*), a *wh*-placeholder denotes a linguistic expression (i.e. type *u*)[51]. The formulation is motivated by the discourse semantics in Section 2.1. The API condition shows that the *wh*-placeholder is consistently used when the speaker wants to avoid explicitly mentioning the intended linguistic expression. The *wh*-placeholder serves as a proxy for another linguistic expression. Since the *wh*-placeholder is a device used to talk about entities in a language, the analysis is a metalinguistic one.

The adoption of the metalinguistic analysis has several advantages. First, *na* is treated in largely the same way as the regular demonstrative counterpart. One can reconcile the following dilemma: on the one hand, the *wh*-placeholder possess the demonstrative marker and referring function, and on the other hand, the *wh*-placeholder does not seem to refer to regular objects, e.g. substitution of predicates or syllables. Second, the metalinguistic view may explain why *wh*-placeholders can occur in predicate or non-word syllable positions, and are insensitive to the phrasal requirement. As long as the target referent is a linguistic

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[50] Otherwise, one may have to look for an alternative explanation to account for the presence of *na* in *wh*-placeholders.

[51] I follow the literature on quotation (e.g. Potts 2007; Sudo 2008), calling linguistic expressions type *u* entities.

expression, the *wh*-placeholder can serve as a proxy for it. It does not have to respect categorical and phrasal requirements. There is independent evidence that when *wh*-words are used metalinguistically, e.g. echo question *wh*-words, the categorical and phrasal requirements no longer seem to apply. English echo *wh*-words, for example, are widely considered to be a metalinguistic device for asking for a linguistic object, i.e. a question about the language itself (Janda 1985; McCawley 1988; Artstein 2002; Fiengo 2007). They can occur rather freely in many positions, disrespecting the categorical and phrasal requirement observed in English interrogative *wh*-words (see Section 6 for examples and discussion).

Skeptics may raise some concerns about the formulation. First, while the metalinguistic approach may look attractive, one may wonder if this is an *ad hoc* solution and query how plausible it is for a demonstrative to establish metalinguistic reference. Here it is highlighted that the use of demonstratives and pronouns for metalinguistic reference is far from exceptional. Definite NPs, demonstratives, and relative, interrogative and personal pronouns in English can perform the function very naturally, as in the examples below (de Brabanter 2010).

(87) ‘Yeah, you’re all right. But you’re not perfect, and you’re certainly not happy. So what happens if you *get happy*, and yes I know **that**’s the title of an Elvis Costello album, I used the reference deliberately [...]’.

(88) It means nothing to you, I suppose, he said, it was just a, **what** do they call it, a one-night-stand.

(89) After several hours of bouncing from one bureaucrat (notice **it**’s a French word) to another I was allowed into the hallowed chambers.

Moreover, they can also refer to expressions of different syntactic categories. More examples of metalinguistic reference via demonstratives and pronouns can be found in Appendix 2.

A second concern [52] is the referentiality of *wh*-placeholders. If the *wh*-placeholder is a demonstrative, one would predict that it is also referential. In other words, the speaker and the hearer should be able to identify the referent[53] (i.e.

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[52] I thank a reviewer for highlighting this potential problem for the analysis.

[53] The condition on referentiality has been extensively discussed in the literature, and is labeled differently as “uniqueness” (Russell 1905; Kadmon 1990), “identifiability” (Chafe 1976), “unique identifiability” (Givón 1984), and “familiarity” (Heim 1982).

the intended linguistic expression). While this is true of the case of taboo, self-censorship and conspiratorial scenarios (see Section 2.1.3—2.1.5), the speaker can also use a *wh*-placeholder even when s/he cannot tell what the intended expression is, as in the scenarios of (i) inability to retrieve the lexical item, and (ii) illegible words (see Section 2.1.1—2.1.2). Nevertheless, that is not necessarily a problem to the demonstrative analysis of *wh*-placeholders. The reason is that even ordinary demonstratives, personal pronouns and definite NPs do not always denote referents known to the interlocuters in the world. It is well-known that demonstratives, personal pronouns and definite NPs can denote discourse referents (Karttunen 1976; Heim 1983; Roberts 2002). Here are some examples where the underlined demonstratives or definite NPs can refer to a non-specific or non-existent referent (italic) that is established purely in the discourse.

(90)   Bill has *a car*. {<u>It</u>/<u>The car</u>/<u>Bill's car</u>} is black.   (Karttunen 1976)

(91)   Michelin is hoping to find *ten inspectors*. <u>These new employees</u> would be required to work the night shift for the first three weeks.   (Roberts 2002)

(92)   Bill saw *a unicorn*. <u>The unicorn</u> had a gold mane.   (Karttunen 1976)

(93)   When a professional athlete sprains an ankle, <u>that injury</u> usually gets special treatment. (Roberts 2002)

In (90) and (91), the respective NPs, *a car* and *ten inspectors*, can conceivably be used in the non-specific sense. Both the speaker and the hearer are not able to pick out the exact car (90) and inspectors (91) in the actual world. Yet, *it, the car, Bill's car* and *these new employees* are all acceptable as demonstratives or pronouns referring to the entities under discussion. Heim (1983) also notes that "an NP may have a discourse referent even when it has no referent". For example, though the NPs, *the unicorn* (92) and *that injury* (93), may not have any corresponding referents in the world, the use of the definite article and demonstrative is grammatical. Kamp (1981) introduces the Discourse Representation Theory to represent such discourse objects[54].

   Similarly, one would expect that DEM+CL in *wh*-placeholders also shares the

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[54] The Discourse Representation Theory is adopted to represent discourse referents. When the speaker produces an utterance containing a *wh*-placeholder, the *wh*-placeholder refers to a discourse entity (the intended linguistic expression) that is either already contained in the discourse structure (i.e. anaphoric) or created via contextual accommodation (i.e. deictic) (see Kamp 1981; Webber 1990). The discourse context must be salient enough to provide the listener with a discourse entity (a unique linguistic expression.

property of being able to refer to discourse referents. Consider the following scenario in (94). Recall the example in (24) where the speaker and hearer are watching the breaking news of a school shootout.

(94) Na   ge qiangshou zhende tai na   ge shenme le.
     DEM CL shooter   really   too DEM CL what   SFP
     'The shooter is really too … whatchamacallit (=brutal).'

Ne ge shenme is used to refer to an adjective (discourse referent) which the speaker cannot identify and whose meaning is established contextually, e.g. 'brutal'. The situation is likened to (92), where *the unicorn* is used to refer to an object (discourse referent) which the speaker cannot identify and whose properties are established in the discourse, e.g. the entity created by the expression *a unicorn*.

A reviewer has offered an example of non-referentiality of *wh*-placeholders. Suppose someone calls John when John is away. Mary takes the call. When John comes back later, Mary says to John:

(95) Na   ge shei da dianhua lai   le.
     DEM CL who hit phone come SFP
     'The whatshisname gave [you] a call.'

The reviewer suggests that (95) may pose a problem. As John (the hearer) is able to name the caller, the *wh*-placeholder in (95) is predicted to be bad. However, if a *wh*-placeholder can refer to a discourse referent, this is not a problem. The condition is that the hearer can infer what the intended expression should be contextually, e.g. a name of the expected caller. Indeed, (95) is normally used when the speaker and the hearer are expecting this phone call from a particular person. If the call is completely unexpected, (95) is still rather odd.

5.2 *Semantics of Metalinguistic Interpretation of* Wh-*placeholders*
As the *wh*-placeholder refers to linguistic objects, one concern is how the *wh*-placeholder combines with other words in the sentence compositionally to obtain the intended meaning. Let us consider the *wh*-placeholders in the following sentences.

(96) Na   ge lao taitai   yijing   <u>na   ge shenme</u>-le.

   DEM CL old lady   already DEM CL what-PERF

   'The old lady has already … you-know-what-ed (= died)!'

(97) <u>Na   ge shei</u> likai-le.

   DEM CL who leave- PERF

   'The whatshisface (=Zhangsan) left.'

On the metalinguistic analysis, *na ge shenme* (96) is a demonstrative expression referring to the word *si* 'die', as opposed to the property of dying (i.e. type *<e, t>*); *na ge shei* (97) denotes the proper noun *Zhangsan*, as opposed to a human individual named *Zhangsan* (i.e. type *e*). However, this would entail semantic anomaly. (96) would mean *"The old lady already [the verb 'die']", and (97) would mean "The proper noun 'Zhangsan' left." In essence, we are caught in the following dilemma. On the one hand, it is attractive to let *wh*-placeholders refer to linguistic expressions to explain the morph-syntactic properties of *wh*-placeholders; on the other hand, we want *wh*-placeholders to mean what the intended expressions mean. Intuitively, we want *na ge shenme* (96) and *na ge shei* (97) to denote a property (type *<e, t>*) and a human (type *e*) respectively.

    To address the problem, a new semantic type and a type-shifting function will be introduced, following the literature on metalinguistic semantic analysis (Potts 2004; Sudo 2008). A new basic semantic type *u* is added specifically for linguistic objects[55] so as to properly distinguish them from non-linguistic objects (i.e. type *e*).

(98) The set of types: *T*

   a. $e, t, u \in T$ (basic types)

   b.   if $\sigma, \tau \in T$,   then $\langle \sigma, \tau \rangle \in T$ (functional types)

The reference of a type *u* entity can be any linguistic object like a morpheme, word, phrase, or a non-word syllable. In contrast, the reference of a type *e* entity can be any non-linguistic object or individual. A type-shifting function, SHIFT$_{<u, \sigma>}$: $\alpha \rightarrow \beta$[56], is introduced to flexibly transform a type *u* entity into the corresponding semantic type

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[55] Type-driven compositional semantics based on Heim and Kratzer (1998) is adopted to implement the semantics of *wh*-placeholders.

[56] Potts (2007) proposed the function SEM in his metalinguistic analysis of quotation, which is similar to SHIFT in this paper.

σ. That is, SHIFT$_{<u, \sigma>}$ accepts a linguistic expression α (type u) as its argument to return its corresponding semantic representation β (type σ). It is posited that all *wh*-placeholders come with this phonetically null function SHIFT. Take (96) as an example. As 'die' is a transitive verb, σ is $<e, t>$, the function maps from type u to type $<e, t>$, i.e. SHIFT$_{<u, <e, t>>}$. In other words, *na ge shenme* itself does not mean 'die', but only indirectly via SHIFT. Similarly, σ is type e in (97), i.e. SHIFT$_{<u, e>}$. *na ge shei* denotes the person named *Zhangsan* indirectly via SHIFT. Because of SHIFT, the *wh*-placeholders, in effect, mean what the intended expression means, and can combine with other words in the sentence in the regular fashion.

(99) a.   **_Wh_-Placeholder**   (☞ = denote)

SHIFT (*na ge shenme*)   SHIFT (*na ge shei*)

1: *na ge shenme*   ☞ si_u 1: *na ge shei*   ☞   *Zhangsan$_u$*

2: SHIFT$_{<u, <e, t>>}$(si_u) ☞ die$_{<e, t>}$(x)   2: SHIFT$_{<u, e>}$(*Zhangsan$_u$*) ☞ Zhangsan$_e$

b.   **Demonstrative / Pronoun**

that / he   ☞   Zhangsan$_e$

(99) summarizes the contrast between *wh*-placeholders and regular demonstratives or pronouns.

5.3 *Decomposing* Wh-*placeholders*

With the analysis in Section 5.1—5.2, the next natural question to ask is: How do the sub-parts of the *wh*-placeholder (i.e. DEM+CL and *wh*-word) give rise to the demonstrative meaning?

5.3.1 *Operator-Variable Analysis of* Wh-*word*

In the last two decades, cross-linguistic research (Huang 1982; Nishigauchi 1990; Cheng 1991 among others) converges to the view that *wh*-words can acquire many different interpretations, for example, interrogative, indefinite and universal interpretation – to name just a few. The challenge is how a unified analysis can be flexible enough to make *wh*-words become interpretable in so many ways. The most widely held assumption is that the *wh*-word is a variable over a set of entities[57]. A

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[57] The set is restricted by a contextually-determined restrictor function (Heim 1982; von

wh-word does not have any inherent quantification force, and must be bound by an operator that independently provides the quantificational force. The presence of different operators results in different interpretation of *wh*-words. Consider the prevalent semantic representation of indefinite, interrogative and universal quantification in the literature.

(100) Ta meiyou mai shenme ba.   (indefinite *wh*)

    he have.not buy what   SFP

    'He has not bought anything.'

    a. 'It is not the case that there is an *x* such that [*x* is a thing & he has bought *x*].'

    b. ~ $\exists \boldsymbol{x}$ [thing(*x*) & he bought $\boldsymbol{x}$]

(101) Ta mai-le   shenme ne?   (interrogative *wh*)

    he buy-PERF what   Q

    a. 'What is *x* such that [*x* is a thing & he has not bought *x*]?'

    b. $?\boldsymbol{x}$ [thing(*x*) & he bought $\boldsymbol{x}$]

     or $\lambda\boldsymbol{p}\ \exists\boldsymbol{x}$ [thing(*x*) & p = he bought $\boldsymbol{x}$]

(102) Ta shenme dou   mai-le.   (universally quantified *wh*)

    he what   DOU buy-PERF

    a. 'He has bought everything.'

    b. $\forall x$ [thing(*x*) $\rightarrow$ he bought *x*]

On the indefinite reading in (100), the *wh*-variable is bound by a covert existential quantifier (Lin 1998, 2004). The *wh*-variable in the interrogative in (101) is bound by a question operator. Alternatively, the Hamblin-style analysis states that there exists at least one member in a set of objects that can make the sentence true, i.e. true answer to the question (Hamblin 1971; Karttunen 1974; Heim 2000). The *wh*-variable in (102) is bound by a universal quantificational adverb *dou*. (102) asserts that all members in the set of relevant objects have been bought.

5.3.2 *Definite Operator and* Wh-*variable*

In a similar vein, it is assumed that the *wh*-word in a *wh*-placeholder is a variable over a set of linguistic expressions (type *u*). DEM+CL serves as a definite operator that picks out a particular expression from the set of expressions. The formulation below

Fintel 1999).

is based on Heim and Kratzer's (1998) Fregean analysis of the definite article in "the NP", as in the English DP *the president*. Common nouns like "president" denote the characteristic functions of sets of individuals (103a). $[\![the]\!]$ takes a function f of type $<e, t>$ as argument, i.e. a set of entities, and returns the a type e entity which the function f is true of, as shown in (103b) (or the formal version (103b')).

(103) "*the* NP"

    a. $[\![president]\!] = \lambda x_e$: x is a president   (NB: a function of type $<e, t>$)

    b. For any $f \in D_{<e, t>}$ such that there is exactly one x for which $f(x) = 1$,

      $[\![the]\!](f)$ = the unique x for which $f(x) = 1$.

    b'. $\lambda f: f \in D_{<e, t>}$ & $\exists! x\ [f(x) = 1]$. $\iota y\ [f(y) = 1]$ (H&K 1998: 84, fn14)

      where "$\exists! x\ [\phi]$" = "there is exactly one x such that ϕ", and

         "$\iota x\ [\phi]$" = "the unique x such that ϕ".

In (103b'), y corresponds to the variable and is bound by the iota ι operator which yields the uniqueness meaning (104).

(104) $[\![the]\!]([\![president]\!])$

    = $[\![the]\!](\lambda x_e$: x is a president)

    = the unique x for which x is a president (= Barack Obama)

Let us return to the semantics of *wh*-placeholder which closely mirrors that of "*the* NP". The *wh*-word denotes the characteristic functions of sets of linguistic expressions (105a). DEM+CL[58] is assumed to be the definite operator that binds the *wh*-variable. $[\![na - ge]\!]$ takes a function f of type $<u, t>$ as argument, and returns a type u entity which the function f is true of, as shown in (105b) (or the formal version (105b')).

"*na-ge shei*" (= DEM+CL *who*)

(105) a. $[\![shei]\!] = \lambda x_u$: $[\![x]\!]$ is a human (under discussion)

    b. For any $f \in D_{<u, t>}$ such that there is exactly one x for which $f(x) = 1$,

      $[\![na - ge]\!](f)$ = the unique x for which $f(x) = 1$.

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[58] As Mandarin does not have a definite article, the demonstrative marker seems to be a reasonable replacement of the definite article.

b'. $\lambda f: f \in D_{<u, t>}$ & $\exists!x [f(x) = 1]$. $\iota y [f(y) = 1]$

    where "$\exists!x [\phi]$" = "there is exactly one x such that ϕ", and

        "$\iota x [\phi]$" = "the unique x such that ϕ".

(106) $[\![na - ge]\!]([\![shei]\!])$

    = $[\![na - ge]\!]([\lambda x_u: [\![x]\!]$ is a human (under discussion)])

    = the unique x (expression) for which the meaning of x refers to a human (under discussion)

Though (103) and (105) are very similar, there are two major differences. First, (103) deals with a type e variable whereas (105) a type u variable. Second, the head noun in "*the* NP", e.g. *president*, highlights the characteristic function (e.g. PRESIDENT(x)) associated with the quantified set but suppresses the notion of variable. In contrast, the head noun counterpart in "*na-ge shei*", i.e. *shei*, specifies the characteristic function (e.g. HUMAN($[\![x]\!]$)) and also highlights the notion of variable (considering that *wh*-words are variables)[59]. The definiteness formulation accounts for the deicticity of *wh*-placeholders (see Section 2.2).
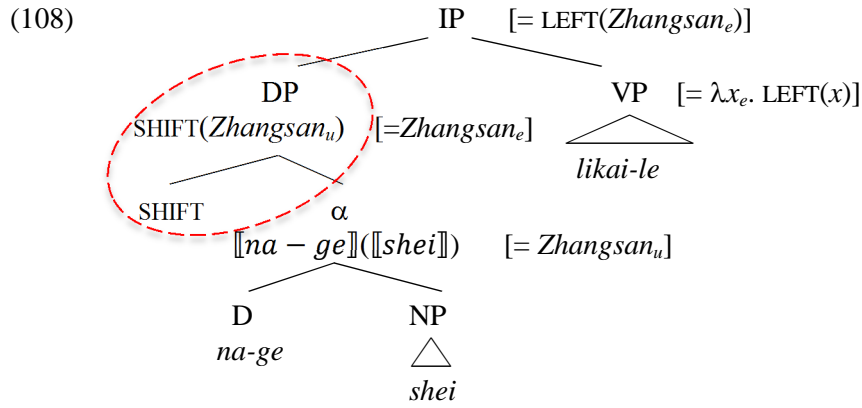
5.3.3 *Three Examples*

Three examples are given below to illustrate the semantic representation of *wh*-placeholders in sentences. The *wh*-placeholders in (107), (109) and (111) substitute a proper name, a verb and a syllable respectively. The SHIFT function proposed in Section 5.2 is indicated by dotted line.

(107) [Na   ge shei] likai-le.

    DEM CL who leave-PERF

    'The whatshisface (=Zhangsan) left.'

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[59] A reviewer has queried how one can derive the *wh*-placeholder meaning of *na-ge* (i.e. the variant without the *wh*-word as discussed in Section 3.2). If my proposed analysis about the three variants (i.e. (47)) is correct (see Section 3.2), *na-ge* has an elided *wh*-word, i.e. *na-ge* ~~shenme~~ or *na-ge* ~~shei~~. The semantic interpretation of *na-ge* is just the same as that of *na-ge shenme* or *na-ge shei*. There is one remaining issue though: how come DEM+CL seems to be more acceptable than DEM+CL+WH? I leave this to future research.

(108)

IP   [= LEFT(*Zhangsan*ₑ)]

DP   SHIFT(*Zhangsan*ᵤ)   [=*Zhangsan*ₑ]   VP   [= λx_e. LEFT(x)]

likai-le

SHIFT   α

⟦*na − ge*⟧(⟦*shei*⟧)   [= *Zhangsan*ᵤ]

D   NP
na-ge   *shei*

Note: α is the node for *na-ge shei*.

* * * * *

(109) Na   ge lao taitai   [na̲   ̲ge̲ ̲shenme]-le.

DEM CL old lady   DEM CL   what-PERF

'The old lady has … you-know-what-ed (= died)!'
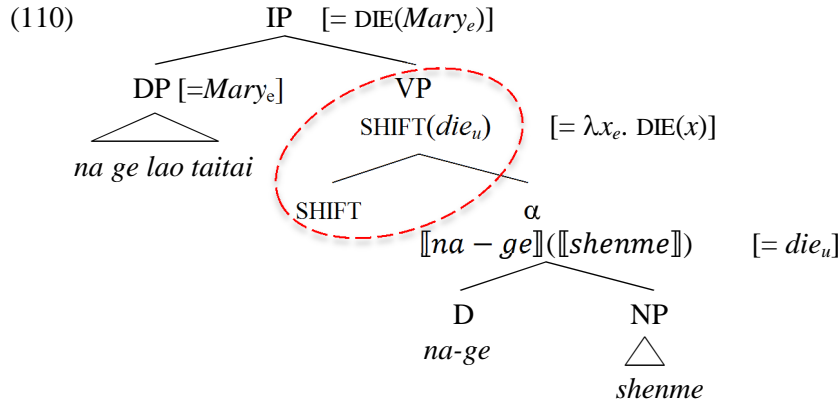
(110)

IP   [= DIE(*Mary*ₑ)]

DP [=*Mary*ₑ]   VP   SHIFT(*die*ᵤ)   [= λx_e. DIE(x)]

na ge lao taitai

SHIFT   α

⟦*na − ge*⟧(⟦*shenme*⟧)   [= *die*ᵤ]

D   NP
na-ge   *shenme*

* * * * *

(111) Ao-shenme-de shi xianren Faguo zongtong.

Hollande   be current France President

'Ao-something-de is the current President of France.'

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(112) IP   [= *CPOF(Ao-lang-de$_e$)*]

    DP   [=*Ao-lang-de$_e$*]   VP   [= λx$_e$. *CPOF(x)*]

    Ao – β – de   *shi xianren*
                      Faguo zongtong

    SHIFT(*lang$_u$*)   [=*lang$_u$*]

    SHIFT   α
    ⟦*na – ge*⟧(⟦*shenme*⟧)   [= *lang$_u$*]

      D   NP
    ~~*na-ge*~~   *shenme*
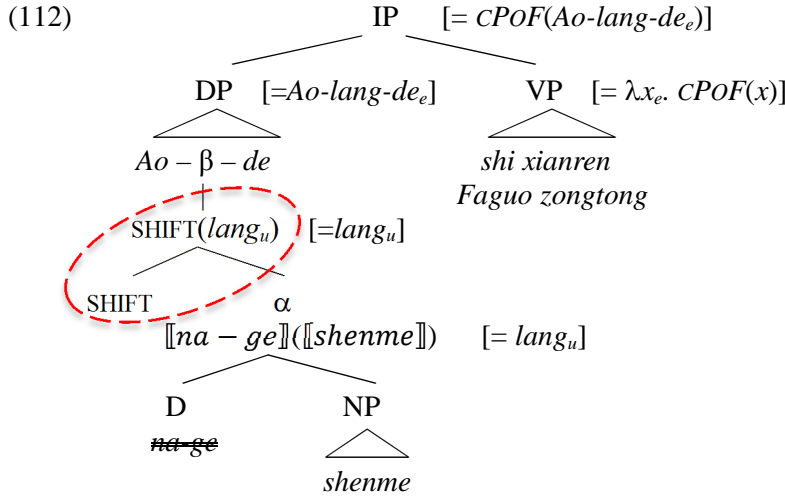
Note 1:   *CPOF(x)* = 1 if *x* is the current President of France.

Note 2:   β is a node for SHIFT$_{<u, u>}$(*lang$_u$*) and is of type *u*. β then combines with the syllable *ao* and *de* to form the proper name *Ao-lang-de*.

Note 3:   *na-ge* is double strikethrough to indicate that it is silent.

6. *REMARKS ON METALINGUISTIC* WH-*WORDS*

In Section 5, it is noted that *wh*-placeholders have the exceptional syntactic distribution that is not found among IIU *wh*-words. The proposal is that *wh*-placeholders are metalinguistic demonstratives and can be flexibly adapted via SHIFT to match the required syntactic category and semantic type in sentences. This section provides further justifications that the proposal is not *ad hoc* but a characteristic of metalinguistic *wh*-words in general. The crucial evidence comes from echo *wh*-questions. Many linguists (Comorovski 1996; Noh 1998; Artstein 2002; Iwata 2003; Fiengo 2007) are of the view that echo *wh*-questions involve questioning the linguistic form of a previous utterance. The spirit is that echo *wh*-questions essentially request for the linguistic expression (type *u*) that one mis-hears. Fiengo (2007: 76) describes his metalinguistic analysis as follows:

> "[…] when I ask *You just talked to who?*, I am not asking you whom you talked to. What I am asking is that you repeat <u>what you have said</u>. If you repeat what you have said, I will of course know whom you said you talked to, but that is different from asking you whom you talked to. The question asks that you produce <u>a bit of language</u>, a repetition of the bit of language that I did not hear." [underline mine]

It is well-known that English echo *wh*-words can occur rather freely in many positions that the speaker wants the addressee to echo (Janda 1985; McCawley 1988; Artstein 2002). The distribution of echo *wh*-words is radically different from that of interrogative *wh*-words.

(113) Smith is the <u>WHAT</u> of the zoology department?   (NP / Arstein 2002: 92)
(114) Tom: I was singing songs for Lucy.   (VP/ McCawley 1988: 724)
     Dick: You were <u>what</u> for Lucy??
(115) A: He swam across the Monongahela River.   (Syllable / Arstein 2002: 92)
     B: He swam across the Mononga-<u>WHAT</u> River?
(116) John witnessed a great reve-<u>WHAT</u>-tion?   (Syllable / Janda 1985)

None of underlined categories above (NP, VP and syllable) can be directly questioned (information-seeking) by *what*. (113)—(116) can only be interpreted as echo *wh*-questions. The observation that echo *wh*-words may correspond to a phrase, a word, or a non-morphemic syllable has been taken to be an important indicator that echo *wh*-words quantify over linguistic expressions (Iwata 2003; Fiengo 2007).

(117) a.   You've bought me a WHAT?   (Iwata 2003: ex. 102)
    b.   I ask for which x, x a phonological string, you said <it is the case [you've bought me a x]>.
(118) a.   She comes from Mur-what-umbah?   (Iwata 2003: ex. 104)
    b.   I ask for which x, x a phonological string, you said <it is the case [she comes from Mur- x -umbah]>.

According to Iwata (2003), the metarepresentation of form means the use of *wh*-variable to substitute for a "phonological unit, rather than a content-bearing unit" (p. 220). The analysis that echo *wh*-words and *wh*-placeholders are type *u* elements has provided a simple account for their flexibility in distribution.

Similarly, Chinese echo *wh*-words in (119)—(121) have very similar exceptional distribution as Chinese *wh*-placeholders. They can substitute a verb, a VP and a syllable, which cannot be the target of information-seeking *shenme*.

(119) A: Zhangsan ma-le   laoshi   yi dun.
        Zhangsan scold-PERF teacher one CL
          'Zhangsan scolded the teacher.'
      B: Zhangsan <u>shenme</u>-le laoshi yi dun?   (Verb / echo *shenme*)
        Zhangsan what-PERF teacher one CL
          'Zhangsan what the teacher?'

(120) A: Ta taitai yijing   ba fangzi   maidiao-le.
        he wife already BA apartment sell-PERF
          'His wife has already sold the apartment.'
      B: Ta taitai yijing <u>shenme</u>?   (VP / echo *shenme*)
        he wife already what
          'His wife has already what?'

(121) Zhao-<u>shenme</u>-Ren shi zai Hafo   biye   ne?   (Syllable / echo *shenme*)
      Zhao-what-Ren   be   at Harvard graduate Q
        'Zhao-what-Ren graduated from Harvard?'

The English and Chinese data above suggests that metalinguistic *wh*-words correlate with the exceptional syntactic distribution. The metalinguistic approach offers a simple explanation of the properties of *wh*-placeholders that would otherwise be difficult to account for.

7. *CONCLUSION*

This paper has identified several important characteristics of *wh*-placeholders in Mandarin Chinese. Functionally, the speaker uses a *wh*-placeholder to substitute the target word or phrase that the speaker cannot utter for some pragmatic reason, e.g. failure to recall someone's name, taboo, avoidance of embarrassment, etc. *Wh*-placeholders are typically used when the speaker believes that the intended meaning of the *wh*-placeholder is salient enough to be inferred deictically. The *wh*-placeholder is generally made up of two parts, namely, the demonstrative marker (DEM+CL) and the *wh*-word. Placeholder *wh*-words, especially *shenme* "what", can occur in many positions that are not possible with IIU *wh*-words, e.g. verbs/VPs, adjectives/AP, non-morphemic syllables, etc.

To explain the phenomenon, it is proposed that the *wh*-placeholder is a demonstrative expression that refers metalinguistically to the intended linguistic

expression. The metalinguistic formulation is supported by another kind of metalinguistic *wh*-words, namely, echo *wh*-words, which also display similar exceptionally flexible substitution of words/expressions. To enable the type *u* *wh*-placeholder to be interpreted as a noun, verb, VP, etc., a silent SHIFT function is posited to shift the semantic type from type *u* to the required semantic type. The operator-variable analysis accounts for the morpho-syntactic composition and semantic contribution of DEM+CL and *wh*-word. DEM+CL serves as a definite operator, and binds the *wh*-word which is a variable quantifying over type *u* expressions.

Acknowledgements

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Appendix 1—Wh-*Singlets* vs. Wh-*Doublets*

While the *wh*-placeholder has only one *wh*-word, Chinese has another *wh*-word based expression called "*wh*-doublets", following Sudo's (2008) terminology on a similar phenomenon in Japanese. *Wh*-words can be doubled, or even tripled (Yu 1964; Shao

1996; Shao and Zhao 1989, Xu 2010 among others), but are not preceded by DEM+CL, as shown in (122) and (123). Chinese *wh*-doublets seem to be able to function as a placeholder as well.

(122) Ta changchang chuixu shuo <u>shei-shei(-shei)</u> hen xinshang ta.

    he often   boast say who-who-who very admire he

    'He often boasts that this one and that one admires him.'

(123) Meimei rang-zhe   yao qu <u>nali-nali</u>   guangjie.

    sister   demand-PROG want go WHERE-WHERE shopping

    'My sister keeps demanding that she wants to go shopping here and there.'

When I consulted Mandarin speakers' judgment on *wh*-placeholders, some would also offer examples of *wh*-doublets to me, thinking that *wh*-doublets are similar to *wh*-placeholders. However, *wh*-placeholders and *wh*-doublets differ in some important ways. While I will leave the investigation of Chinese *wh*-doublets to future research, three major differences are highlighted.

    First, it has often been reported that *wh*-doublets are typically used in embedded indirect speech context[60] (Hua 1994; Xu 2010). Indeed, most *wh*-doublet examples found in the literature are in such a grammatical environment, as in (124)—(125)[61].

(124) Lisi shuo Zhangsan {<u>zenme-zenme / zen(me)yang-zen(me)yang</u>} jingming;

    Lisi said Zhangsan how how   / how   how   shrewd

    wo que conglai mei jianshi-guo.

    I   but ever   not experience-EXP

    'Lisi said that Zhangsan is shrewd this way and that way, but I have never experienced it before.'

(125) Ta zui   ai   zhao jiekou shuo ta shi <u>weishenme-weishenme</u> chidao.

    he most like find excuse say   he be why-why   late

    'He always likes to find excuses, explaining that he is late because of this and that.

---

[60] Sudo (2008) observes that Japanese *wh*-doublets, which have the flavor of placeholder interpretation, can only be used in quotative contexts.

[61] In Section 3.1, we find that *zenme(yang)* (as an attributive modifier) and *weishenme* cannot function as a *wh*-placeholder. They are, nevertheless, natural as *wh*-doublets, as in (124) and (125).

When *wh*-doublets are not in the embedded environment, many Mandarin consultants find them weird or unacceptable, as in (126)—(129).

(126)?/??Shei-shei(-shei) hen xinshang ta.

     who-who-who very admire   he

    '(It is said that) this one and that one admires him very much.'

(127)?/??Meimei yao qu nali-nali   guangjie.

     sister   want go WHERE-WHERE shopping

    '(It is said that) my sister wants to go shopping here and there.'

(128)?/??Zhangsan {zenme-zenme / zen(me)yang-zen(me)yang} jingming.

     Zhangsan how   how   how   how   shrewd

    Intended: 'It is said that Zhangsan is shrewd this way and that way.'

(129)?/??Ta shi weishenme-weishenme cidao.

     he be why-why   late

    Intended: 'He is late because of this and that.

Yet *wh*-placeholders do not display such sensitivity to the indirect speech context.

    Second, *wh*-doublets easily trigger a "more than one" quantification reading (Shao and Zhao 1989; Hua 1994; Shao 1996; Xu 2010). For example, (122) can mean that more than one person admires him. Similarly, (124) can also mean that Lisi compliments Zhangsan's being shrewd in different ways. *Wh*-placeholders do not have the same effect.

Appendix 2 – More examples of metalinguistic denotation of pronouns and demonstratives (taken from de Brabanter 2010)

(130) I still remember the day, before he was repatriated (Ray explained the meaning of **the word** to me very carefully) back to Paris by the French Government for treatment [...].

(131) They genuinely tried to become, to use **a horrid word**, acculturated with the white invaders, even if they had no desire to be assimilated. (BNC AJV 758)

(132) A: I think of him as a family man.

B: Funny, I've always considered **that phrase** an oxymoron. (Julian Barnes 1998, *England, England*, Picador, p. 64)

(133) Yes, everything went swimmingly, **which** is a very peculiar adverb to apply to a social event, considering how most human beings swim. (Julian Barnes, *Love, etc.*, Picador, pp. 70-71)