Nouns in Mandarin Chinese Syntax(*1)

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0. Introduction

In the present paper, I investigate what kinds of verbs connect with the noun "眼光" (henceforth "yanguang" in an explanation)(*2). In other words, I observe verbs from the standpoint of the noun. Of course, "yanguang" connects with adjectives, but I do not include them here except for a statistical purpose. According to my investigation, in one case "yanguang" occurs between a subject word (henceforth S or Subject) and a predicate verb (henceforth V or Verb), "S----- "眼光" ----- V". The other is the case in which the noun "yanguang" is used after the verb, "S----- V----- "眼光". I will present a detailed explanation later using these notations. Now let us observe three Chinese sentences with English translations.

- 0. 1 A brief survey of the word "yanguang" Let me show the following examples.
 - 1a. 矮胖子看见雷参谋的【眼光】望着细头长脖子的男人,
 - 1b. When the short, fat man saw that the colonel was looking at his companion, (Matsumura 1989d: 111)

The noun "yanguang" does not have a corresponding word in the English example "was looking at". From a logical or a semantic point of view, we do not need to use "yanguang". So example la can be rewritten as "矮胖子看见雷参谋望着细头长脖子的男人,". Is the word "yanguang" in Chinese redundant from a semantic point of view?

We also observe examples such as the following.

- 2a. 许多【眼光】射向这站在门边的雷参谋的身上。
- 2b. All eyes turned to Col. Lei as he stood in the doorway.

(Matsumura 1989d: 107)

In 2b, we find "eyes" which corresponds to "yanguang" in 2a. The "yanguang" should not be deleted without breaking the basic structure of 2a. So the "yanguang" in 2a is not redundant.

The example below shows that the English translation includes causative meaning which is expressed by the word "let", although it is not clear whether the Chinese example corresponding to it has a causative meaning or not.

- 3a. 他微微笑着, 【眼光】在众人脸上扫过。
- 3b. He smiled and let his eyes travel over the faces turned towards him. (Matsumura 1989d: 107)

It is not instantly explicit that the word "yanguang" composes a causative construction in 3a. However we cannot deny that it does because of the fact that we find examples such as the following. (In the following examples, "MAO5:397" specifies the file name (MAO5) and the sentence number (397). Sentences are counted by the number of carriage returns.)

- 4. 他在客厅里叫骂, 【眼光】扫过那客厅里的陈设, 在地毯上, 桌布上, 沙发套上, 窗纱上, ——找出"讹头"来喝骂那些男女当差。(MA05:397)
- 5. 吴荪甫很注意地听着, 【眼光】在屠维岳那冷静的脸上打圈子。(MA04:133)
- 6. 唐云山又是抢着说, 【眼光】在吴王二人脸上兜一个圈子。(MAO2:54)
- 7. 唐云山大笑, 【眼光】在黄奋脸上一掠, 似乎说: "你看! (MA01:142)
- 8. 陈君宜急口问, 【眼光】射住了朱吟秋的脸孔。(MAO1:451)

You may conclude that the word "yanguang" constitutes a causative expression respectively, if you only observe the examples above.

0.2 Further discussions on the word "yanguang"

Now let us consider the structure of the clause headed by the word "yanguang" in example 9 below. This clause constructs an "eargative structure." What is the "eargative structure? Here we consider examples 9 and 10. Example 9 has the verb "溜" after the word "yanguang". The word "yanguang", however, occurs after the verb "溜" in example 10.

- 9. 冯眉卿一手掖住了她那睡衣,夹七夹八地乱说,【眼光】只往刘玉英脸上溜。 (MAO3:565)
- 10. 这么想着,他忍不住叹一口气;又溜过【眼光】去看姨太太。(MA02:851)

In 9, the word "yanguang" is a subject word. In 10, the word "yanguang" is an object word. From 10, we know the word "yanguang" occurs as an object word. So in 9, we assume hypothetically that the word "yanguang" was originally located after the verb "溜", having such a sentence order as "只往刘玉英脸上溜【眼光】". The word "yanguang" is moved to the top of the clause by NP-movement. In this case, we call the construction in example 9 an "eargative structure" (Radford 1988:374).

Here let us consider the above examples from 4 to 8 again. We take the word "yanguang" and the main verbs out of the clauses respectively.

- 4. 眼光-----扫(过)
- 5. 眼光----打(圈子)
- 6. 眼光-----兜 (一个圈子)
- 7. 眼光----(一) 掠
- 8. 眼光-----射(住了)

In these examples, no reversing word order is possible. In other words, "yanguang" cannot be an object word in examples from 4 to 8.

- 4. *扫(过)-----眼光
- 5. *打(圈子)-----眼光
- 6. *兜(一个圈子)---眼光
- 7. * (一) 掠-----眼光
- 8. *射(住了)-----眼光

Nevertheless we feel some similarity between the examples from 4 to 8 and the eargative structure in 9. Why do we feel a similarity among them? The paired examples below present us with proof for our intuitions.

- 11a. 王和甫没有什么不赞成,但也没有直捷表示,只把【眼光】钉在吴荪甫 脸上,等待这位足智多谋而又有决断的"三爷"先来表示意见。(MAO2:68)
- 11b. 屠维岳冷冷地微笑着, 机警的【眼光】钉住在桂长林脸上。(MA02:613)
- 12a. 吴少奶奶也像正气似的问, 一面把她的俏媚的【眼光】掠到她丈夫的脸上。 (MAO2:29)
- 12b. 屠维岳把身子一挺, 【眼光】在众人脸上掠过, 大声说: (MA02:592)
- 13a. 大家脸上都有喜色,却是谁也不开口,都把询问的【眼光】射住了孙吉人。 (MAO2:101)
- 13b. 屠维岳骄傲地挺直了胸脯, 【眼光】尖利地射住了吴荪甫的脸。 (MAO4:147)

In the above examples 11b, 12b, 13b, if we insert the preposition "ba" in front of the word "yanguang" or its modifier, each sentence is well-formed and its meaning is preserved without change. This fact is proved by observation of the corresponding example of each sentence 11a, 12a, and 13a. They have the same sentence structures and main verbs as the corresponding pairs.

So it is possible to assume that the word "yanguang" has derived from the prepositional phrase which has an accusative case role. We now conclude that sentences 11b, 12b, and 13b have an "eargative structure" which have their subjects derived from accusative cases.

According to the discussion above, it is clear that the previous examples from 7 to 8 have an "eargative structure". In 7, "黄奋脸上" has a dative case role, and the word "yanguang" an accusative case role. In 8, "朱吟秋的脸 孔" is a dative case NP, and the word "yanguang" an accusative case NP. Examples from 4 to 6 are different, so I will present a detailed explanation later.

In the examples below, if we delete the preposition "ba" in 14a and 15a, the sentences are well-formed and their meanings are preserved. Examples 14b and 15b have the same sentence structures and main verbs as their corresponding pairs, and present justification for the previous deletion.

- 14a. 他把那尖利的【眼光】向四周围瞥了一下,然后用出最庄重…(MA04:796)
- 14b. 人们的【眼光】在新闻上瞥了一下以后,心里只浮起个"又来了"的…(MAO2:3)
- 15a. 他们把疑问而嘲笑的【眼光】射到范博文身上, 嘈嘈哜哜地在身边… (MAO2:295)
- 15b. 他觉得四面八方有千百条毒【眼光】射到他身上。(MAO4:517)

Let us go back to the examples from 4 to 6. In those examples, the word "yanguang" does not derive from accusative cases. Because the predicate verbs "扫(in 4), 打(in 5), 兜(in 6)" have already had their accusative NPs "那客厅里的陈设(in 4), 圈子(in 5), 一个圈子(in 6)". So the question now is: "Where does the word "yanguang" from examples 4 to 6 come from?" I think it derives from instrumental cases. Because such V-0 constructions as "扫过…陈设", "打…圈子", and "兜一个圈子" are not expressions whose default semantic values are [+ eyes' activity] respectively. The instrumental case is normally used for [- eyes' activity]. The overt marker for the instrumental case is the preposition "用" in Mandarin Chinese.

- I show examples using the case marker "用" below.
- 16. 林佩珊身体不动,也没开口,只用【眼光】答应了范博文的颇带些热情的呼唤。(MAO2:283)
- 17. 立刻一个青年人探头在办公室门口用【眼光】向王和甫请示了。(MAO4:59)
- 18. 阿祥也在一处频频用【眼光】探询李麻子。(MAO4:359)
- 19. 同时他又用【眼光】去征求王和甫以及陈君宜的同意。(MAO1:439)
- 20. 但是屠维岳用【眼光】制止了他们,又指着墙角的一张长凳…(MA04:176)
- 21. 林佩珊不放心,用【眼光】去追询杜新箨;她刚才…(MAO3:157)

In the above examples, the preposition "yong" is placed in front of the word "yanguang". It should be noted that the prepositional phrase "yong + yan-

guang" expresses one particular way of realizing the activity expressed by the following verb. Those verbs are "答应,请示,探询,征求,制止,追询" $(V(\gamma))$. The default semantic feature for them is not [+ eyes' activity]. For example, the default semantic feature of the verb "答应" is [+ mouth's activity]. Examples from 18 to 21 show us that the instrumental case "yòng yǎnguāng 用眼光" is followed by a V-O construction respectively. Each example gives us proof for the intuition that "yǎnguāng 眼光" in 4, 5, and 6 are instrumental cases.

Now we go back to the previous example 1a. The word "yanguang" seems to be redundant in 1a. We find same type of examples below.

- 22. 冯云卿喉间"呃"了一声,……,【眼光】瞅定了他朋友的那张胖脸。 (MAO2:770)
- 23. 费小胡子……,可是他【眼光】一瞥,看见吴为成和马景山一边一个夹住了那野马似的曾家驹,……(MA03:306)
- 24. 四小姐惊喊着,脸也红了,【眼光】迟疑地望着张素素,似乎说…(MA05:560)

Examples 22, 23, and 24 are well-formed and involve no change of meaning after deleting the word "yanguang." Each "yanguang" seems to be redundant. However the deletions are possible only in cases where the following main verbs express the action of eyes. If the following main verbs are not specified as eyes' action, the deletion process does not work.

- 25. 吴荪甫很注意地听着, 【眼光】射定了赵伯韬的面孔。(MAO5:381)
- 26. 雷参谋·····, 【眼光】炯炯地射定了吴少奶奶的还带几分迷惘的脸孔。 (MAO1:564)

In 25 and 26, the sentences become ill-formed after the deletion of the word "yanguang." The main verb "射定" does not directly connect itself with the agents "吴荪甫,雷参谋".

From the above discussion, we realize that the redundancy of the word "yan-guang" is based on the characteristic of the main verbs which connent them-

selves with the word "yanguang." In all the examples containing the word "yanguang" on the text database, redundant "yanguang" examples and "eargative structures" do not have a majority.

So far we have described some usages of the noun "yanguang." But the descriptions of its usages are far from an exhaustive listing. I do not prepare any powerful or persuasive criteria for making it. I propose now an investigation of the usages of the noun "yanguang". The aim of the investigation is to find verbs or adjectives which are connected to the word "yanguang."

1. An investigation of the word "yanguang" in the written text

1.1 A brief survey

We have built two databases (*3) One is "Midnight" by Mao Dun. The other is "A Family of Four Generations" by Lao She.

n	Midnight" (Mao Dun)	"A Family of Four (Lao She)	Generations"
Functions in sentences	Numbers	Numbers	
Subject words	83	3	
Object words	16	8	
Objects(BA-construction	1) 12	1	
Nominatives	11	2	
Instrumentals	.7	2	
Locatives	9	0	
Sources	1	0	
Attributives	2	0	
Total	141	16	

Table 1: Numbers of examples including the word "yanguang".

It is quite obvious that Mao Dun used "yanguang" many times, while Lao

She restricted to its use 16 examples in the whole volume. The criterion for dividing a function in a sentence is not rigidly fixed. 'Subject words' is the example which includes the word "yanguang" in front of the predicate verb. 'Object words' is the example in which the word "yanguang" is placed at the back of the predicate verb. In 'Objects(BA-construction)', the word "yanguang" is located after the preposition "ba".

'Nominatives' is the example where the word "yanguang" is used as a subject word, while its predicate word is an adjective. 'Instrumentals, Locatives, and Sources' are the examples in which the words "yanguang" are assigned case roles respectively. 'Attributives' is the example where the word "yanguang" is used as a modifier of a subject word or an object word.

It is sometimes difficult to assign a case role to the word "yan-guang." We may assign an "accusative(or objective) case" role to the first "yanguang", and "dative case" role to the second "yanguang" in 27 below.

27. 忽然何秀妹……。恰好她的【眼光】正接触了屠维岳那冷冷的【眼光】。 (MAO4:578)

But it is not easy to assign case roles to the "yanguang" in the following examples.

- 28. 两个人的【眼光】接触了一下就又分开,冯眉卿的脸红了,…(MAO3:560)
- 29. 他们两个人的【眼光】接触了一下,随即又分开,各自继续她们…(MAO5:328)

It seems that we may assign an accusative case role to "yanguang", but it will be far from a native speaker's intuition. Because there is no disposal meaning in both sentences. So we tentatively include the above sentences into 'Subject words.'

1.2 What kinds of verbs are used with the subject word "yanguang"? Here I present an exhaustive list of the verbs $(V(\alpha))$ which connect with the subject word "yanguang" in "Midnight." (*4)

爆出 变成 逼到 逼住 瞅定 打回旋

呆定了	打量	打圈	打圈子	低	低垂
钉死	钉在	钉住了(4)	钉住在(2)	兜圈子	滚过
含有	回上去	接触了(3)	看	看得出	看定了
看着	来回了	冷峻了	溜(3)	露忿意	落到
落在(2)	掠	掠过	迷乱	碰在	瞥
瞥到(2)	瞥了	扫过	扫射	煽旺shānwàn	g射出来
射到(2)	射定了(2)	射向	射在(5)	射住了(4)	说
说了	四射	跳出	望定了	望着(2)	像
有(3)	稚气	转成	转到	转射	注在

In "Midnight", the verb "射" is used 15 times(18.29%). "钉(盯)" appears 8 times(9.76%). Used 4 times(4.88%) are "瞥,看,落". "打,接触,溜,扫,望,转" appear 3 times(3.66%) each. Eleven verbs occupy nearly 65% of all the examples.

In "A Family of Four Generations", I find 3 examples, in which "碰到" is used twice, and "遇到" appears once.

1.3 What kinds of verbs are used with the object word "yanguang"?

I present an exhaustive list of the verbs which connect with the object word "yanguang" in "Midnight."

避开	躲避	感受	跟着(4)	回答
看见	接触了	溜过	凝起了	抬起
斜过	有(办事有毅	力,又有眼光	()	运动

Mao Dun used "yanguang" as an object 16 times. The number of frequencies are less than I thought. Each example later has an explanation in detail.

8 examples are found in the database "A Family of Four Generations" by Lao She. Verbs used in front of the word "yanguang" are "感觉到,收回 (used twice),有 (used five times)". In these examples, the behavior of the verb "yǒu 有" is different from the others. The majority of them are used as a part of the adjective. So a verb-object construction "yǒu yǎnguāng 有眼光" has the meaning "have a good eye for". They are used like adjectives, forming such constructions as "有眼光,这么有眼光,最有眼光".

However some of them still maintain a verb-object construction by composing

such examples as "有胡涂的眼光, 有远大的眼光".

1.4 Relationships between the word "yanguang" and a predicate verb.

Why does Mao Dun use so many "yanguang" as the subject word? Why do so many verbs connect with the subject noun phrase "yanguang"?

When the word "yanguang" connects with such verbs as "钉(盯), 瞅, 看, 瞥" which express "eyes' activity", there is no contradiction about the selectional restriction between the subject word "yanguang" and predicate verbs.

When the word "yanguang" connects with a verb which does not have a direct semantic relation with "eyes' activity", what will happen to the selectional restrictions?

The word "yanguang" connects with such verbs as "变成,逼到,打量,接触,射在,转成,…". Each member of the verbs is not specified with regard to the semantic feature [eyes' activity]. So its default feature is an [eyes' activity]. When it is used after the subject word "yanguang", it becomes an eyes' activity. In other words, its default feature an [eyes' activity] gets the value "+", resulting in the semantic specification [+ eyes' activity]. In this process the word "yanguang" is a trigger in the transition from [eyes' activity] to [+ eyes' activity].

On the contrary, when the word "yanguang" is used as an object word, it does not become a trigger of the feature transition, for instance, in the following example,

30. 屠维岳···在朱桂英身上身下打量,朱桂英虽然低着头,却<u>感受</u>到那【眼光】。 (MAO4:221)

The predicate verb "gǎnshòu 感受" has no direct relationship with "eyes' activity". The following examples present the same cases.

The default feature of the verbs "duŏbì 躲避 (in 31), bìkāi 避开 (in 32), gēnzhe 跟着 (in 33), huídá 回答 (in 34) " is not assigned [+ eyes' activity], but is assigned [eyes' activity].

- 31. 虽则他们是坐在一丛扁柏的后面,既然<u>躲避</u>了游客的【眼光】,也躲避了… (MAO2:261)
- 32. 他避开了刘玉英的【眼光】,泛起眼白望着窗,右手的中指在…

(MA03:696)

- 33. 李玉亭<u>跟着</u>吴荪甫的【眼光】也对那鹦鹉看了一眼,心里倒没有了主意… (MAO3:344) (There are three other examples using the verb "gen".)
- 34. 屠维岳只点一下头,却不回答阿珍,也没回答她那勾引性的【眼光】,他 突然…(MAO4:179)

The verb "kànjian 看见" in 35 below originally has the default feature [+ eyes' activity] by itself, the feature is not given by "yǎnguāng 眼光" in an object position.

35. 然而她们<u>看见</u>屠维岳那坚决的【眼光】,就明白这件事无可挽回… (MAO4:485)

The verb "jiēchù 接触" in the following 36 is given the semantic feature [+ eyes' activity] by the preceding "yǎnguāng 眼光", not by the following "yǎnguāng 眼光"

36. 恰好她的眼光正接触了屠维岳那冷冷的【眼光】。(MAO4:578)

Let me show the points of the discussion.

Example	Subject	Predicate verb	0bject
30 31 32	屠维岳 他们 他	感受到 躲避了 避开了	那【眼光】 游客的【眼光】 刘玉英的【眼光】
33	李玉亭	跟着	吴荪甫的【眼光】
34	屠维岳	回答	她那勾引性的【眼光】
35	她们	看见	屠维岳那坚决的【眼光】
36	她的眼光	接触了	屠维岳那冷冷的【眼光】

An eminent characteristic is that the word "yanguang" in the Object does not belong to the Subject.

I roughly describe this characteristic as the following:

Si------眼光j("i" and "j" express 眼光 does not belong to S)

If the word "yanguang" belongs to the Subject, the description should be as follows:

Si----- V(ε)-----眼光i(two "i"s express 眼光 belongs to S)

Examples are:

- 37. 吴荪甫垂着头踱了一步,然后抬起狩厉的【眼光】,再轻声说下去: (MA04:66)
- 38. 吴荪甫凝起了他的尖利的【眼光】,不转睛地望着杜竹斋的山羊脸。 (MA01:543)
- 39. 这么在那里忖量的吴荪甫就运动他的尖利的【眼光】观察各人的神色。 (MA01:487)
- 40. 姨太太别转了面孔,却斜过【眼光】来瞅着冯云卿这么波俏地说着。 (MAO2:827)
- 41. 这么想着,他忍不住叹一口气;又溜过【眼光】去看姨太太。(=10)

The prominent characteristic in each example above is that the word "yanguang" is placed at the first NP slot of the verbal expressions in the series (Chao 1968: 325) or the serial verb constructions (Li and Thompson 1981: 594). Let me show the key words of each example.

example	verb 1	first NP	verb 2	second NP/S
37 38 39	抬起 凝起 运动	行历的眼光 他的尖利的眼光 他的尖利的眼光	 说下去 望着 观察	none 杜竹斋的山羊脸 各人的神色
40	斜过	眼光	瞅着	冯云卿…说着
41	溜过	眼光	看	姨太太

The frequencies of examples having the form Si----- 眼光i" are very small. Above examples are an exhaustive list except the example

which includes "有眼光" such as the following: "孙吉翁办事有毅力,又有眼光,就可惜这次一开仗…(MAO1:113)". "有眼光" should be a member of Adjectives, so I ignore it here.

Therefore, the 5 examples left are of the form "Si----V-----眼光i". In this form, "眼光i" is the first NP of the verbal expressions in the series. So it is not easy to move "眼光i" to the front of the verb. Why is it not easy to move the first NP to the front? Let me show the following examples.

- 42. 姨太太别转了面孔,却斜过【眼光】来瞅着冯云卿这么波俏地说着。 (=40)
- 43. 同时他又用【眼光】去征求王和甫以及陈君宜的同意。(=19)

The key words for the discussion are below.

example	verb 1	first NP	verb 2	second NP/S
42	 斜过	眼光	 瞅着	 冯云卿⋯说着
43	用	眼光	征求	王和甫…同意

In 42, "斜过" is in the verb 1 slot. In 43, "用"occupies the verb 1 slot. Although the verb 1 in 42 preserves the concrete meaning of the verb itself, namely "casting a side glance", its syntactic function for connecting the first NP to the following verb 2 should be emphasized. The function is similar to the function of the verb 1 in 43. The verb 1, "用"in 43 preserves its meaning as a verb, that is "using (eyes)", but its syntactic function for connecting the argument "眼光" to the verb 2, "征求" is also prominent. From a macroscopic point of view, both "斜过" and "用"have a connecting function which is similar to that of a preposition. So the constituents "verb 1 + first NP" in 42 and 43 are similar to a prepositional phrase. As a result, examples 42 and 43 are composed of the pseudo pre-

positional phrases "斜过眼光" "用眼光" and the main verbs "瞅着" "征求", respectively. As for the pseudo prepositional phrase, the noun has already been placed in front of the main verb. So there is no need to move the first NP.

How about the examples by Lao She? Lao She has 8 examples in which the word "yanguang" is used as an object word. But 5 examples have the form "有眼光" or its expanded form. So 3 examples are left for our analyses.

- 44. 大赤包和招弟感觉到了那些【眼光】与手指,而更加多了出来的次数。 (LA007:332)
- 45. 她慢慢的从小绿枣子上收回【眼光】,看了看她。(LA006:293)
- 46. 他收回来【眼光】,无意中的看到东墙,墙上舒舒展展的钉着一张完整的人皮。(LA008:164)

44 has the form "Si-----眼光j". "眼光j" has no semantic influence on the preceding verb "感觉(到)", because "感觉(到)"does not express an [eyes' activity].

45 and 46 are of the form "Si-----V-----眼光i". Both "眼光i" are in the first NP slot of the expanded form of a "verbal expressions in the series." I show the key words below.

example	verb 1	first N	P ve	erb 2	second NP
45	收回	眼光		看(了看)	她
46	收回来	眼光	(无意中的)	看到	东墙

Now we know the method of analysis used in Mao Dun can be applied to the examples of Lao She, although the data are only three.

Finally the exhaustive list of verbs appearing in the examples of Mao Dun in which "ba"+"yanguang" is used $(V(\beta))$ is presented below.

钉在	溜	掠到	瞟着	瞥了一下
射到	射住了(3)	收回	移到	注在

2. 0 Conclusions

I summarize the usages of the noun "yanguang" into the following five types. Type 1 has the form "Si-----"眼光i"-----V(α)".

Each member of $V\left(\alpha\right)$ is assigned a semantic feature [+ eyes' activity].

"眼光" belongs to S(Subject) except in non-occurrences of the Subject.

Type 2 has the form "Si---- "把" + "眼光i" ----- $V(\beta)$ ".

Members of $V(\beta)$ are included in $V(\alpha)$.

"把" is deleted under some conditions.

Type 3 has the form "Si---- "用" + "眼光i" ----- V(γ). "Si---- "" + "眼光i" ----- V(γ).

Members of $V(\gamma)$ are not included in $V(\alpha)$.

"用" is deletable in cases where (i) $V(\gamma)$ is included in $V(\alpha)$,

(ii)an accusative case noun phrase obligatorily exists, (iii) a dative case noun phrase exists optionally.

Type 4 has the form "Si-----V(δ)---- "眼光j".

Members of $V(\delta)$ are not included in $V(\alpha)$.

"眼光j" does not give a direct semantic influence on the preceding verb $V(\delta)$, namely each member of $V(\delta)$ is not assigned a semantic feature [+ eyes' activity] by "眼光j".

Type 5 has the form "Si-----V(ϵ)----- "眼光i".

Members of $V(\epsilon)$ are not included in $V(\alpha)$ except for "溜". Members of $V(\epsilon)$ are the first verb of a "verbal expressions in the series."

Notes

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- 2) This investigation was made possible partly by the 1992 research and travelling funds from the Ministry of Education in Japan and Kobe University of Commerce. The text databases used here have been accumulated since 1986, when my colleague Yoshimi Inouchi and I were given the funds for scientific research by the Ministry of Education in Japan from 1986 to 1987. The research project has been successful enough to construct "Computer-assisted Chinese Language Learning System Using Human Voices" in our campus, and utilizes 70 sets of the system for teaching Chinese. I also produced text databases of Mandarin Chinese as by-products. I am wholly responsible for the proofreading of the databases. In the process of making the databases, I am deeply indebted to Teruyo Matsumura for her contribution in inputting the text data using Japanese characters. The conversion program from Japanese character codes to Chinese simplified character codes was extremely helpful for completing the text databases. I express my sincere thanks to Masayuki Niwa (PROBIT Co. Ltd) for producing useful utilities for the users of the Chinese word processor "Wenhua13000".
- 3) I used two text databases. The first one is "Midnight" (《子夜》) by Mao Dun (茅盾) (1986, first printing in 1933), Beijing: Peoples' Literature Press (人民文学出版社), 552 pages (347,000 characters). The second one is "A Family of Four Generations (《四世同堂》)" by Lao She (老舍) (1979, first printing in 1946 to 1950), Tianjin: Baihua Wenyi Press (百花文艺出版社), 1147 pages (317,000 + 500,000 characters).
- 4) In these examples, each "yangugang" has no such overt case markers as "把", "用", and "在". So we have to seek a suitable case role for each "yanguang". For example, in "屠维岳……, 【眼光】尖利地射住了吴荪甫的脸, (MAO4:147)", I assign an accusative case role to the

word "yanguang". An instrumental case role is assigned to "yanguang" in the example "冯云卿……, 【眼光】瞅定了他朋友的那张胖脸。(MAO2:770)". The word "yanguang" gets a locative case role assignment in the following example "似乎这【眼光】含有怨意,冯云卿不便……(MAO3:3)". It is, nevertheless important to list the whole verbs, because we get data which will reveal in what conditions the word "yanguang" occurs without a case marker.

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