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`Three inches high' in Mandarin

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"Well, I should like to be a *little* larger, Sir, if you wouldn't mind," said Alice: "three inches is such a wretched height to be."

"It is a very good height indeed!" said the Caterpillar angrily, rearing itself upright as it spoke (it was exactly three inches high).

—Lewis Carroll (1939:53)

1. In A Handbook on Chinese Language Structure, Henry Henne et al. (1977:118) state that since le "expresses completed action", it "normally follows verbs which express an action that can be completed, and not just a state or a quality". However, an exception is noted "where the quality verbs change their function and resemble action verbs in that they express a process, as in: $T\bar{a}_1 g\bar{a}o_2 le_3 s\bar{a}n_4 cun_5$. 'He₁ has₃ grown₂ three₄ inches₅'."

If "quality verbs change their function" in the presence of le, I prefer to describe the observed change as the semantic contribution of le. The semantic contribution of $g\bar{a}o$ 'high' is then left unaffected, matching the lack of formal change in $g\bar{a}o$ between collocations with and without le.

2. In A Grammar of Spoken Chinese, Chao Yuen Ren (1968:315) treats a similar example in the following way:

[...] in kuān sān-chǐ 'wide three feet', there is sometimes ambiguity as to whether it means 'three feet wider or too wide' or 'three feet wide'. The ambiguity can be resolved by using the perfective particle -le for the former and changing the construction to the V-R form [a verb followed by a complement —J.W.] by using the verb dào/dao 'as far as'. For example,

¹ I have omitted the Chinese characters from Chao's text and converted his Gwoyeu Romatzyh transcription to Hànyǔ Pīnyīn.

guòzhòngle wǔ-bàng 'have exceeded (in weight) by five pounds', but gāo dào liù-chǐ 'tall to six feet,—as tall as six feet'. If the content ["context"? —J.w.] is clear enough, then a speaker often does not use the precisive forms with -le or dào. (p. 315)

Note that a contrast between two readings 'three feet wider or too wide' and 'three feet wide' makes sense only if the second reading is taken in the sense of 'having a width of three feet'. After all, English three feet wide presents a very similar ambiguity to the one noted by Chao, for it can mean either 'three feet too wide' or 'having a width of three feet'.

3. In terms of form, an essential difference between Henne's example and the ones given by Chao is the presence versus the absence of the third person pronoun $t\bar{a}$. For the moment, I confine myself to expressions without $t\bar{a}$. The function of $t\bar{a}$ in Henne's example will be discussed in section 6.

In terms of meaning, I subscribe to the accuracy of the translations given by Henne and Chao for their examples. For the sake of comparison in sections 3 to 5, I shall adapt the examples in the following two ways. I will assume (a) that removing $t\bar{a}$ from Henne's example yields the meaning 'have grown three inches' for $g\bar{a}o$ le $s\bar{a}n$ cùn, and (b) that Chao's explanation assigns the meaning 'have exceeded in height by three inches' to $g\bar{a}o$ le $s\bar{a}n$ cùn. Note that $g\bar{a}o$ le $s\bar{a}n$ cùn is not a sentence. The role of forms like $g\bar{a}o$ le $s\bar{a}n$ cùn in forming sentences will be discussed in sections 6 and 7.

Perhaps more controversially, I will also assume that *le* denotes a contrast between two segments of time. *Le* is often described as representing two homonymous particles: a perfective suffix occurring in verb-final position, and a predicate-final particle with inchoative and other aspectual as well as modal functions. For such descriptions see e.g. Chao (1968:246–247), Henne (1977:118), and Charles N. Li and Sandra A. Thompson (1981:296–300). To my mind, the semantic similarities between the two *le*'s thus differentiated are too striking to warrant an analysis in terms of homonymy. The evidence usually adduced for such analyses is of a diachronic, comparative, or theoretical nature. Internal evidence seems to allow for a unifying treatment of Mandarin *le* in terms of polysemy. I shall not argue the case for the proposed meaning of *le* here. Instead I will try to demonstrate some of its explanatory force through its application to the examples treated below.

4. Returning now to Henne's and Chao's explanations, both readings of gao le san cùn, 'have grown three inches' and 'have exceeded in height by three inches', concur in denoting a comparison between a certain height and a height of reference. The difference between the two readings resides in the identification of the entity to which the height of reference pertains. Henne's 'have grown three inches' compares an entity's height with a previous height pertaining to the same entity, e.g. when a bamboo shoot is discovered to measure seven inches and is contrasted with its previous height of four inches. On the other hand, if I understand Chao correctly, 'have exceeded in height by three inches' does not specify the entity to which the height of reference pertains. When a seven-inch bamboo shoot is said to gao le san cùn, it leaves at least the following two possibilities open: either the shoot has increased in height by three inches, or it has grown to be three inches taller than its languishing neighbors. Chao's description allows for a polysemous relationship between the two readings. To sum up, gão le sãn cùn denotes a comparison between an entity's height and a height of reference without identifying the entity to which the height of reference pertains.

Henne and Chao also agree in their use of the English Present Perfect in "has grown" and "have exceeded", indicating that le contributes a perfective meaning to expressions such as gão le sãn cùn. Removing le does not, however, remove the kind of polysemy noted for gão le sãn cùn. That this polysemy also applies to gão sãn cùn is suggested by one of Chao's translations for kuān sān chǐ: 'three feet wider or too wide' does not specify the entity to which the height of reference pertains. Thus, when a bamboo shoot is seven inches tall, gão sãn cùn may either express that it is 'three inches taller' than its previous height, or that it is 'three inches too tall' according to the four-inch norm set by the local canning factory. Removing le does of course have the effect of removing the perfective meaning. In other words, for gão sãn cùn, without a le presenting the events as having changed between one time and another, an entity is not said to 'have exceeded in height by three inches', but rather to 'have an excessive height of three inches'. The events are presented, in Henne's words, as "a state or a quality".

5. According to Chao's note on ambiguity, gāo sān cùn can also mean 'three inches high' in the sense of 'having a height of three inches'. I think this ambiguity can also be described in terms of polysemy.

In each of the meanings discussed so far, an entity was said to possess

a height amounting to an excess of three inches when compared with a reference height. As an alternative and perhaps simpler way to describe these meanings, I propose that they simply present an entity as somehow characterized by a height of three inches.² The hearer is left with the task of deciding whether this height is to be identified as an excess of height pertaining to the entity ('three inches taller', 'three inches too tall') or as the total height of the entity ('having a height of three inches').

I think this analysis, apart from uniting the observed meanings of $g\bar{a}o$ $s\bar{a}n$ cun in terms of polysemy, also provides an explanation for Chao's suggestion to resolve the ambiguity noted in section 2 by means of le. Given the choice between a reading representing a difference and one without a difference, additional clues will tip the scales. In the case of Chao's ambiguity, if the hearer can choose whether to identify a given height as an excess of height or as a total height, the former option is much more plausible if le provides the clue that contrasting segments in time are involved. This is essentially the same mechanism as the one mentioned in section 1, where the interpretation of $g\bar{a}o$ 'high' in terms of "a process" instead of "a state or a quality" is triggered by le. The same analysis may effectively be taken up from the other end: le expresses that some change has occurred over time, and $g\bar{a}o$ triggers an interpretation of this change in terms of height.

6. Chao's ambiguity mentioned in section 2 can also be resolved without adding a perfective notion. When asked to formulate an expression stating that something has a height of three inches without representing it as having grown, being taller than something else, or being too tall, native speakers of Mandarin have suggested sān cùn gāo 'having a height of three inches'. The same pattern occurs in two Mandarin translations of the passage where Carroll's Alice has finished off the bottle labeled "DRINK ME":³

² The idea for an analysis along these lines was first suggested to me by Professor F. H. H. Kortlandt (personal communication, 28 September 1992). I take full responsibility for any shortcomings in the implementation of the idea.

³ The following abbreviations are used in the glosses:

Third person pronoun. The meaning of the third person pronoun $t\bar{a}$ does not usually include number, except for formal styles and some syntactic positions, where it denotes the singular.

- (1) "[...] she was now only ten inches high [...]" (Carroll 1937:21)
 - a. tā xiànzài bú dào yì chỉ gāo le
 3Fnow not arrive one foot high PF (Carroll 1970:13)
 - xiànzài tā zhí yǒu shí Yīng cùn gão le now 3F only exist ten English inch high PF (Carroll 1981:13)

However, $s\bar{a}n c\bar{u}n g\bar{a}o$ allows of a comparative reading: 'at three inches, to be the taller [of the two dwarfs]'. The main syntactic difference between these two readings of $s\bar{a}n c\bar{u}n g\bar{a}o$ is that the meaning 'having a height of three inches' involves one nexus, while 'at three inches, to be the taller' involves two.

NEXUS is Otto Jespersen's (1924:97, 114 ff.) term for the syntactic relationship exemplified in the dog barks and in the rose is red (p. 114). The analytic power of the concept has been explored in great detail by Carl Ebeling (1978:231–248, 323–329). In Ebeling's terms, nexus combines two meanings which refer to the same entity in the real world, or REFERENT, and besides are explicitly presented as such, i.e. as pointing to the same referent. In the dog barks, the meanings of the dog and of barks point to the same referent, i.e., in the typical case, a barking dog. Moreover, the message that this is the case is part of the meaning of the dog barks. In other words, the dog barks states explicitly that the entity which is referred to as a dog is the entity which barks. The functional division between the first and the second nexus members can be thought of as representing the order in which the speaker conceptualizes and organizes his message, and often corresponds to nominal and verbal expressions, respectively.

Now compare the following two examples of nexus:

³F Third person feminine pronoun. Mandarin pronouns are not marked for gender, but a distinction between male, female, and neuter is regularly made in the character script. Where my examples reflect originals in Chinese characters, these distinctions have been maintained. The original character texts are reproduced at the back of this article.

PF Perfective. See section 3.

SUB Subordination as expressed by the particle de.

- (2) Tā gāo.
 3 high
 'She was tall.'
- (3) Gāo. high 'She was tall.'

The first nexus member in (2) is the meaning of the third person pronoun $t\bar{a}$. If the referent of this meaning is Alice, she is also the referent of the meaning of $g\bar{a}o$. Alice, in other words, at once embodies the third person and the entity that is tall.

Following Ebeling (1978:22–23), I will use the term CORRELATION for the relationship between a form, e.g. $g\bar{a}o$, and its meaning, e.g. 'high': a specific form correlates with a specific meaning, and vice versa. The two correlates together make up the Saussurian SIGN (de Saussure 1985: 97 ff.).

In sentence (3) there is no separate morpheme correlating with the first nexus member. Nevertheless, the speaker has a definite entity in mind represented by a separate meaning which I will symbolize as 'IT'. The meaning 'IT' represents an entity known by the speaker and presented as such. It invites the hearer to look for an entity, e.g. Alice, to which the meaning can reasonably be applied. This meaning serves the same function in (3) as the meaning of $t\bar{a}$ in (2). To sum up, for the nexus in (3), Alice at once embodies the entity which the speaker assumes can be identified by the hearer and the entity that is tall.

In example (2) the presence of $t\bar{a}$ and its position preceding $g\bar{a}o$ make nexus available. In (3) a nexus is made available by the fact that (3) is a sentence. The precise formal means used in Mandarin to mark off sentences do not concern us here, but, as in many languages, prosodic features such as the presence of an intonation peak play a dominant role. The semantic correlate of the sentence intonation in (3) includes the presence of nexus. There is thus a difference between the following " $g\bar{a}o$'s":

⁴ A narrow transcription may distinguish between signs in italics (e.g. $g\bar{a}o$), forms quoted as sequences of phonemes between slashes (e.g. $/g\bar{a}o$), and meanings placed between single quotes (e.g. 'high'). Here I will represent forms as if they were signs, and speak of "the form $g\bar{a}o$ ".

- the form gāo, which correlates with the meaning 'high';
 - the form Gāo., which is a sentence correlating with the meaning 'IT is high.', where 'IT' denotes a referent which is assumed to be identifiable from the context;
 - an utterance of the form $G\bar{a}o$. in a context where Alice can be identified as the referent of the meaning 'IT'.

Hence the identification of Alice as a referent of 'IT' does not belong to the meaning of $G\bar{a}o$, but to the interpretation of that meaning in a specific context. Interpretations are not meanings and do not belong to the linguistic sign.

To return to the readings of $s\bar{a}n$ $c\bar{u}n$ $g\bar{a}o$ noted at the beginning of this section, these were formulated as 'having a height of three inches' and 'at three inches, to be the taller'. Now that the role of sentence intonation in the analysis has been made clear, it is possible to formulate the meanings of the sentence $S\bar{a}n$ $c\bar{u}n$ $g\bar{a}o$. as 'IT has a height of three inches.' and 'At three inches, IT is the taller.'. For the first meaning, one nexus is involved of which the first member is 'IT' and the second member the meaning of $s\bar{a}n$ $c\bar{u}n$ $g\bar{a}o$ 'height of three inches'. In other words, something that is to be identified by the hearer is said to be something with a height of three inches.

The second meaning of $S\bar{a}n$ cùn $g\bar{a}o$. is 'IT₁ is three inches and IT₁ is high'. This meaning contains two instances of nexus, each of which has 'IT' as its first member. The two occurrences of 'IT' have the same referent: whatever is said to be three inches is also said to be tall. I indicate coreferentiality by adding identical subscript numbers. Conversely, identical meanings which are non-coreferential will be indicated by different subscripts. An overview of some nexus constellations in the meanings of $S\bar{a}n$ cùn $g\bar{a}o$. will be given in table (9).

7. In section 3, I chose the form gão le sãn cùn from the examples provided by Henne and Chao and formulated the meanings correlating with this form as 'have grown three inches' and 'have exceeded in height by three inches', respectively. Following the procedure outlined in section 6, the meanings of the sentence Gão le sãn cùn. can now be formulated as 'IT has grown three inches.' and 'IT has exceeded in height by three inches.', respectively, and the meaning of Gão sãn cùn. as 'IT is three inches high.' Cases of polysemy parallel to those noted in sections 4 and 5 apply, but additional meanings can be brought to light. For Gão sãn cùn., different constellations of nexus are summarized in (4).

Here I transcribe interpretations as if they were meanings, viz. between single quotes. Conversely, text between single quotes represents a meaning unless it is explicitly indicated that it represents an interpretation.

(4) Some nexus constellations for Gão sãn cùn.

nexus ₁		nexus ₂		meaning of	instance of
1 st nexus member	2 nd nexus member	1 st nexus member	2 nd nexus member	Gão sãn cùn.	one inter- pretation
'gāo'	'three inches'			'Gāo is three inches.'	'This char- acter for gão is three inches wide.'
'IT'	'three inches high'			'IT is three inches high.'	'You were three inches too tall.'
'IТ' ₁	'high'	'IT' ₁	'three inches'	'IΤ ₁ is high and IΤ ₁ is three inches.'	'Since the cardboard boxes are high, they are the 3-inch variety.'
'IT' ₁	'high'	'IT' ₂	'three inches'	'IT ₁ is high and IT ₂ is three inches.'	'If the ceiling is high, you need a 3-inch bolt.'
'IT' ₁	one of the meanings of (4a)-(4d), e.g. (4b)	(4b): 'IT' ₂	(4b): 'three inches high'	'IT ₁ is that IT ₂ is three inches high'	'It's that you were three inches too tall.'

Example (4a) is a special case where the meaning of $g\bar{a}o$ is ' $g\bar{a}o$ ', which is interpreted as 'the Chinese character for $g\bar{a}o$ '. In the meaning of (4a), the character is stated to be three inches in one way or another. In the interpretation of (4a) given here, the three inches refer to the width of the character. I think that it is not possible to have 'high' instead of ' $g\bar{a}o$ ' as the first nexus member and 'three inches' as the second member, as found in English *The height is three inches*. This type of nexus does occur in Mandarin when $g\bar{a}o$ is replaced by $g\bar{a}od\hat{u}$ 'height' or $sh\bar{e}n'g\bar{a}o$ 'stature', as illustrated by $sh\bar{e}n'g\bar{a}o$ jiŭ Y $\bar{i}ng$ ch" in the following example:

(5) [...] diào jìn le yănlèi chí, nà shi tā shēn'gāo jiǔ fall enter PF tear pool that be 3F stature nine
Yīng chǐ shí kū chéng de. (Carroll 1981:25)
English foot time cry become sub

"she was in the pool of tears which she had wept when she was nine feet high" (Carroll 1937:27)

Note that the nexus in *shēn'gāo jiŭ Yīng chī* 'the stature is nine English inches' is itself the second member of the nexus which has 'she' (or more precisely, '3RD PERSON FEMININE') as it first member. I will call a nexus with an embedded nexus a raised nexus and present more details in the discussion of example (4e) below.

The nexus constellation of (4b) and its polysemous readings have been treated in sections 4 and 5. For (4c), imagine that you need cardboard boxes. When you tell the shop assistant Yào gão de. 'I need high ones.', he may answer, half speaking to himself, and knowing that these boxes are available in only two standard sizes: Gão sãn cùn. 'They're high, so they're three inches.' There may be a pause between gão and sãn cùn, but this break is optional. Also note that 'three inches', as in (4a), need not refer to a height. The cardboard boxes may be known by their widths and be distinguished as the 3-inch variety and the 4-inch variety, where the former is a high model and the latter a lower model.

For the meaning in (4d), suppose that I have a large chandelier that I want to suspend from the ceiling. I go to the hardware store to buy a metal chain and a large screw. This type of chain is very heavy. Therefore the more chain I use, the more weight is to be suspended, and the longer the screw fixing it to the ceiling will need to be. When I ask the hardware vendor what size screw he recommends, he says: Tiān-huābăn gāo ma? 'Is the ceiling high?'. Failing to see the relevance to my question, I repeat: Zhèi ge luósi yào duó cháng? 'What length does the screw need to be?'. The hardware man may then answer: Gāo sān cùn. 'If it's high, three inches.', adding perhaps: Bú tài gāo dehuà, yí cùn yě xíng. 'If it's not too high, one inch will do.' Here again, there is an optional pause between gāo and sān cùn.

Example (4e) covers a number of constellations which may appear to belong to the meaning of $G\bar{a}o \, s\bar{a}n \, c\bar{u}n$. I will argue that they do not. The phenomenon involved here is RAISED NEXUS: a nexus one of whose members is itself a nexus. In the examples covered by (4e), the raised

nexus has a nexus as its second member. This kind of raised nexus frequently occurs with shi 'be'. Compare the following examples:

- (6) Jiàqian gāo. price high 'The price is high.'
- (7) Wèntí shi jiàqian gāo. problem be price high 'The problem is that the price is high.'
- (8) Shi jiàqian gāo.
 be price high
 'It's that the price is high.'

In (6), the price is stated to be high: the first and second nexus members are 'price' and 'high', respectively. The raised nexus in (7) presents the price being high as the matter at hand. In this raised nexus, the first member is 'problem' and the second member is the nexus which is also present in (6). Example (8) presents the same raised nexus except that it has 'IT' as its first member. I have described raised nexus with shi 'be' in more detail in Wiedenhof (1993). The question at issue in (4e) is whether sentence (6) can have the meaning which is expressed unambiguously by sentence (8). At first sight, this seems to be possible. Imagine someone telling you that she doesn't want to buy a particular book because she has a problem. You may ask Wentí shi shéme? 'What's the problem?'. If she answers (8) Shi jiàqian gão. 'It's that the price is high.', the first member of the raised nexus 'IT' may be interpreted as being coreferential with the meaning 'problem' of your question. But if she answers the question as (6) Jiàqian gão. 'The price is high.', will the sentence likewise have to be analyzed as containing a raised nexus with 'IT' as its first member? Without this raised nexus, the sentence Jiàqian gão. seems to be a statement unconnected with the preceding question. However, this statement can be an answer to the preceding question by virtue of its interpretation alone. I do not think that a raised nexus is part of its meaning, and nothing in the form Jiàqian gāo. seems to justify such an analysis. The same arguments apply to example (4e) in the table. I conclude that (4e) cannot be analyzed as the raised nexus version of the meanings given in (4a, b, c, d).

In table (9), some nexus constellations which I think are possible for Sān cùn gāo. are given without further comment.

(9) Possible nexus constellations for San cùn gão.

١	nexus ₁		nexus ₂		meaning of	instance of
	1 st nexus member	2 nd nexus member	1 st nexus member	2 nd nexus member	Sān cùn gāo.	one interpretation
	'san cùn'	'high'			'Sān cùn is high.'	'The words sān cùn are pronounced at a high pitch.'
	'IT'	'have a height of three inches'			'IT has a height of three inches.'	'The Caterpillar was three inches high.'
	'IT' ₁	'three inches'	'IT' ₁	'high'	'IT ₁ is three inches and IT ₁ is high.'	'At three inches, he was the taller of the two dwarfs.'
	'IT' ₁	'three inches'	'IT' ₂	'high'	'IT ₁ is three inches and IT ₂ is high.'	'If the pitch pipe is three inches, the tone is high.'

8. The two tables in (4) and (9) are not meant to exhaust the possible nexus constellations. There may be more constellations of nexus than those shown in the table for which the thought of a possible referent did not occur to me. The main aim of presenting the analysis in this form is to suggest one way in which these forms and their meanings can be made available for further discussion.

Original character text of example sentences

- (1) a. ... 她現在不到一尺高了 ...
 - b. ... 现在她只有十英寸高了.
- (5) 掉进了眼泪池,那是她身高九英尺时哭成的.

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