# Context Dependency of Bare Gradable Adjective Predicates in Mandarin Chinese*

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**Abstract**
This paper provides an empirical description of the context dependency of bare gradable adjective predicates' interpretation in simple gradable adjective predications, polar questions, the contrastive focus construction, and *gen…xiangbi* comparisons in Mandarin Chinese. It presents empirical data and tests to argue that a bare gradable adjective predicate such as *gao* in the above four structures can either mean 'tall' (a positive reading) or 'taller' (a comparative reading) in appropriate contexts. The presented data set challenges the widespread assumption in prior literature that a bare gradable adjective predicate in the above four structures can only have the positive reading in all contexts.

**Key words**
context dependency, bare gradable adjective predicate, positive/comparative readings

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## 1. Degree modification and context-dependency

Adjectives in Mandarin Chinese can be categorized into two categories: non-gradable adjectives and gradable adjectives (Zhu 1980; Liu et al 2001; Shi 2001). The first category includes adjectives such as *gan'ganjing'jing* 'clean', *tonghong* 'red', and *yingbangbang* 'hard', which are not compatible with pre-adjective degree modifiers such as *hen* 'very', *feichang* 'very', *tebie* 'extremely', and *xiangdang* 'quite' or post-adjective modifiers such as *hen duo* 'a lot' and *yi dian* 'a little'. See examples in (1a) and (1b), respectively. On the other hand, adjectives such as *gao* 'tall', *ai* 'short', and *hou* 'thick' fall into the second category and they can be preceded or followed by degree modifiers. See (2a) and (2b) for examples. In (2a), *gao* means 'tall' but in (2b) *gao* means 'taller'. We refer to *gao*'s meaning in (2a) as the positive reading of a gradable adjective and its meaning in (2b) as the comparative reading. In this paper, I limit the discussion to the interpretation of gradable adjectives in Mandarin Chinese.

(1) a. * Ni-de fangjian hen/feichang/tebie/xiangdang gan'ganjing'jing.
your room very/very/extremely/quite clean
b.* Ni-de fangjian gan'ganjing'jing hen duo/yi dian.
your room clean a lot/a little

(2) a. Zhangsan hen/feichang/tebie/xiangdang gao. (positive reading)
Zhangsan very/very/extremely/quite tall
'Zhangsan is very/very/extremely/quite tall.'
b. Zhangsan gao hen duo/yi dian. (comparative reading)
Zhangsan tall a lot/a little
'Zhangsan is a lot/a little taller (than someone known from context).'

Data in (2) indicate that the semantic interpretation of a gradable adjective is specified in the presence of a degree modifier. However, data in (3b) and (4b) suggest that without a degree modifier, the gradable predicate *gao* 'tall' can either permit a positive or a comparative reading given appropriate context. As shown in (3b), the positive reading of *gao* 'tall' is permitted when (3b) is used to answer (3a). *Gao* 'tall' in (3b) means 'positively tall', i.e., tall relative to a contextually provided standard. In contrast, *gao* 'tall' in (4b) means 'taller than an individual known from context'. In other words, the comparative reading of *gao* arises in (4b) when (4b) is used to answer (4a).

(3) a. *interlocutor A*:
Zhangsan zhang-de zen-me-yang? Zhangsan gao ma?[1]
Zhangsan grow-DE what Zhangsan tall SFP
'What does Zhangsan look like?' 'Is Zhangsan tall?'
b. *interlocutor B*:
Zhangsan gao. (positive reading)
Zhangsan tall
'Zhangsan is tall.'

[1] Abbreviations: DE=de; SFP=sentence final particle

(4) a. *interlocutor A*:
Zhangsan he Lisi, shui gao?
Zhangsan and Lisi who tall
'As for Zhangsan and Lisi, who is taller?'
b. *interlocutor B*:
Zhangsan gao. (comparative reading)
Zhangsan tall
'Zhangsan is taller (than Lisi).'

The contrast between (2) on the one hand, and (3b) and (4b) on the other suggests that the (non)occurrence of degree modifiers does not affect the grammaticality but plays a role in interpreting the semantics of a gradable predicate, such as *gao,* in certain sentence structures. This study identifies four structures that show the same pattern as outlined above and provides empirical tests to examine the semantics of bare gradable adjective (BGA) predicates.

**2. Syntactic carriers for context-dependent BGA predicates**

This section identifies four structures in which a BGA predicate can have either a positive or a comparative reading depending on the context. The four structures are simple gradable adjective predications, polar questions, the contrastive focus construction, and *gen…xiangbi* comparisons. See examples in (5)-(8). In (5)-(8), the degree modifier *hen* 'very' is chosen to test whether a structure allows for the optional occurrence of degree modifiers. This study uses *hen* 'very' as a representative degree modifier to make the data set more comparable to those in previous studies. Examples in (5)-(8) show that the degree modifier *hen* 'very' can optionally occur and the presence/absence of *hen* 'very' plays a role in interpreting the gradable adjective *gao* 'tall'. Specifically, gradable adjective predicates can only have positive readings when the degree modifier *hen* 'very' is present but can take either reading when *hen* 'very' is absent.

(5) simple gradable adjective predications
a. Zhangsan hen gao. (positive reading)
Zhangsan very tall
'Zhangsan is very tall.'
b. Zhangsan gao. (positive/comparative reading)
Zhangsan tall
'Zhangsan is tall/Zhangsan is taller.'

(6) polar questions
a. Zhangsan hen gao ma? (positive reading)
Zhangsan very tall SFP
'Is Zhangsan very tall?
b. Zhangsan gao ma? (positive/comparative reading)
Zhangsan tall SFP
'Is Zhangsan tall?/Is Zhangsan taller?'

(7) the contrastive focus construction

a. Zhangsan hen gao, Lisi hen ai. (positive reading)
Zhangsan very tall Lisi very short
'Zhangsan is very tall, but Lisi is very short.'

b. Zhangsan gao, Lisi ai. (positive/comparative reading)
Zhangsan tall Lisi short
'Zhangsan is tall, but Lisi is short/Zhangsan is taller and Lisi is shorter.'

(8) *gen…xiangbi* comparisons

a. Gen Zhangsan xiangbi, Lisi hen gao. (positive reading)
with Zhangsan compare-with Lisi very tall
'Compared to Zhangsan, Lisi is very tall.'

b. Gen Zhangsan xiangbi, Lisi gao. (positive/comparative reading)
with Zhangsan compare-with Lisi tall
'Compared to Zhangsan, Lisi is tall/taller.'

2.1 Simple gradable adjective predications

In (5a), *hen* 'very' is present and only a positive reading of *gao* 'tall' is achievable. In (5b), the BGA predicate *gao* can permit either a positive or comparative reading in an appropriate context. See example contexts in (3a) and (4a).

The difference between the positive reading of *gao* in (5b)/(3b) and the comparative reading of *gao* in (5b)/(4b) can be demonstrated by their different requirements on context. (3b) requires Zhangsan to meet a contextually provided standard of tallness, while (4b) requires Zhangsan's height to exceed another individual's height. Among the example contexts in (9), Zhangsan meets the standard of tallness in (9a) and (9c), but not in (9b) or (9d). As a response to (3a), (3b) is felicitous in the context of (9a) and (9c), but not in (9b) or (9d). See the notations listed under (3b) in (9), where √ and X stands for the felicity and infelicity of (3b) occurring in certain contexts, respectively. The same notation applies to the rest of this paper. The above discussion suggests that the felicity of (3b) places the following requirement for appropriate contexts: Zhangsan's height meets the contextually provided standard of being tall. In contrast, the above requirement does not apply to (4b). (4b) is a felicitous response to (4a) despite the specific standard of tallness defined in the context. As indicated by notations listed under (4b) in (9), (4b) is felicitous in the context of (9c) and (9d), but not in (9a) or (9b). In (9c) and (9d), Zhangsan meets the standard of tallness in the former but not in the latter. However, this difference does not affect the felicity of (4b) occurring in either of the contexts, which indicates that the felicity of (4b) is not contingent on the contextually defined standard of tallness. In addition, the fact that (4b) is a felicitous answer to (4a) in the context of (9c) but not in (9a) implies that (4b) requires the existence of more than one individual's height known from the context. The aforementioned claim is further supported by the fact that (4b) is felicitous in (9d) but not in (9b). In both (9d) and (9b), Zhangsan does not meet the standard of tallness but (9d) contains information of both Zhangsan and Lisi while (9b) only includes information of one individual, i.e., Zhangsan. Thus, the contrast between (9d) and (9b) also suggests that the felicity of (4a) requires the existence of two individuals known from the context.

(9) (3b) (4b)

a. People who are over 170 cm are tall. Zhangsan is 172 cm. (√) (X)
b. People who are over 175 cm are tall. Zhangsan is 172 cm. (X) (X)
c. People who are over 170 cm are tall. Zhangsan is 172 cm. Lisi is 171 cm. (√) (√)
d. People who are over 190 cm are tall. Zhangsan is 172 cm. Lisi is 171 cm. (X) (√)

The different readings of *gao* in (3b) and (4b) are further supported by the complementary distribution of (10) and (11) as the response to (3a) and (4a). In (10), *gao* is modified by *yi dian* 'a little/a bit' and it takes a comparative reading. In (11), *gao* is modified by *hen* 'very' and it takes a positive reading. As illustrated in table 1, (10) is a felicitous response to (4a) but is odd in the context of (3a), while (11) can felicitously answer (3a) but not (4a). The fact that (3a) is not compatible with answers that denote comparative predications indicates that (3a) calls for answers that denote positive predications. Since (3b) is a felicitous answer to (3a), (3b) can only denote a positive predication, and *gao* in (3b) can only take a positive reading in the context given in (3a). Similarly, the fact that (4a) excludes answers that denote positive predications indicates that (4a) requires a comparative predication as its answer. Since (4b) is a felicitous response to (4a), (4b) can only denote a comparative predication, and *gao* in (4b) can only obtain a comparative reading in the given context in (4a).

(10) Zhangsan gao yi dian. (comparative reading)
Zhangsan tall a little
'Zhangsan is a little taller (than someone known from context).'

(11) Zhangsan hen gao. (positive reading)
Zhangsan very tall
'Zhangsan is very tall.'

Table 1. The complimentary distribution of (10) and (11) as the response to (3a) and (4a)

| | (3a) | (4a) |
|---|---|---|
| (10) comparative reading | # | √ |
| (11) positive reading | √ | # |

To summarize, discussions on (3b) and (4b) indicate that the string-identical utterance *Zhangsan gao* can denote different kinds of predication when it is used in different contexts. When it is used in a context such as (3a) where the speaker is interested to know whether Zhangsanis positively tall, the utterance *Zhangsan gao* denotes a positive predication, and the gradable adjective *gao* takes a positive reading. However, when the context is to compare the height of two individuals such as Zhangsan and Lisi in (4a), the utterance *Zhangsan gao* denotes a comparative predication, and *gao* takes a comparative reading. In other words, both (3b) and (4b) denote comparisons, but they differ from each other in the type of comparison indicated by the BGA predicate *gao*. *Gao* in (3b) indicates a comparison between an individual and a contextually provided standard, while *gao* in (4b) denotes a comparison between two individuals.

2.2 Polar questions

The BGA predicate *gao* in (6b)/(12b) can take a positive reading when used as a follow-up question to (12a) but *gao* in (6b)/(13b) can only take a comparative reading after (13a). The empirical evidence and reasoning is parallel to those of simple gradable adjective predications. Details will be left out here.

(12) a. Zhangsan zhang-de zen-me-yang?
Zhangsan grow-DE what
'What does Zhangsan look like?'

b. Zhangsan gao ma? (positive reading)
Zhangsan tall SFP
'Is Zhangsan tall?'

(13) a. Zhangsan he Lisi, shui gao?
Zhangsan and Lisi who tall
'As for Zhangsan and Lisi, who is taller?'

b. Zhangsan gao ma? (comparative reading)
Zhangsan tall SFP
'Is Zhangsan taller?'

2.3 The contrastive focus construction

As for the contrastive focus construction, exemplified in (7), gradable adjectives *gao* 'tall' and *ai* 'short' can only mean 'positively tall/short' when co-occurring with *hen* 'very' as in (7a). However, when *hen* 'very' is absent as in (7b), the accessibility of a positive/comparative interpretation of *gao* 'tall' and *ai* 'short' depends on context. See example contexts in (14a) and (15a). As shown in (14b) and (15b), the string-identical utterance *Zhangsan gao, Lisi ai* has different interpretations in different contexts. As a response to (14a), only the positive readings of *gao* 'tall' and *ai* 'short' in (14b)/(7b) can be obtained. However, in the context of (15a), only the comparative readings of *gao* 'tall' and *ai* 'short' can be allowed in (15b)/(7b).

(14) a. *interlocutor A*:
Zhangsan zhang-de zen-me-yang? Tamen gao ma?
Zhangsan grow-DE what they tall SFP
'What does Zhangsan look like?' 'Are Zhangsan and Lisi tall?'

b. *interlocutor B*:
Zhangsan gao, Lisi ai. (positive reading)
Zhangsan tall Lisi short
'Zhangsan is tall, but Lisi is short.'

(15) a. *interlocutor A*:
Zhangsan he Lisi xiangbi, shui gao? Shui ai?
Zhangsan and Lisi compare-with who tall who short
'As for Zhangsan and Lisi, who is taller and who is shorter?'

b. *interlocutor B*:
Zhangsan gao, Lisi ai. (comparative reading)
Zhangsan tall Lisi short
'Zhangsan is taller and Lisi is shorter.'

In the following, I cite empirical evidence to support the alleged interpretations of BGA predicates in (14b) and (15b), respectively. The positive readings of *gao* 'tall' and *ai* 'short' in (14b) are supported by the fact that (14b) can felicitously answer (14a) only in contexts where Zhangsan meets the standard of tallness while Lisi does not. (14a) indicates that the speaker is interested in knowing what Zhangsan and Lisi look like according to standards that are presumed conventionally. Among the contexts in (16), (14b) can felicitously answer (14a) in the context of (16a), but not in (16b)-(16d). See the notations under the column (14b) in (16). In (16), the standard of being tall is set to be 170 cm. Zhangsan meets the standard in (16a) and (16c). However, in (16c), Lisi also meets the standard and therefore, is considered as tall, which contradicts *Lisi ai* in (14b). In summary, as a response to (14a), (14b) is true in context where the comparison is conducted relative to the contextually defined standard, and Zhangsan meets the standard while Lisi does not. In other words, as a response to (14a), (14b) can only express a positive predication, and the gradable adjective *gao* 'tall' and *ai* 'short' in (14b) can only take the positive readings. On the other hand, the comparative reading of *gao* 'tall' and *ai* 'short' in (15b) is supported by its requirement of felicitous context. In (15a), the domain of comparison is explicitly limited to Zhangsan and Lisi, and (15a) suggests that the topic of mutual interest is the ordering relationship between Zhangsan's height and Lisi's height. As a response to (15a), (15b) is true in the context of (16a)-(16c), in which Zhangsan's height exceeds Lisi's height. Moreover, the fact that (15b) can felicitously occur in (16b) suggests that (15b), differing from (14b), does not require that Zhangsan is tall according to the contextually provided standard because Zhangsan does not meet the standard in (16b).

(16)

| | | (14b) | (15b) |
|---|---|---|---|
| a. | People who are over 170 cm are tall. Zhangsan is 172 cm. Lisi is 168 cm. | (√) | (√) |
| b. | People who are over 170 cm are tall. Zhangsan is 168 cm. Lisi is 167 cm. | (X) | (√) |
| c. | People who are over 170 cm are tall. Zhangsan is 172 cm. Lisi is 171 cm. | (X) | (√) |
| d. | People who are over 170 cm are tall. Zhangsan is 168 cm. Lisi is 169 cm. | (X) | (X) |

The above claims of BGA predicates' interpretation in (14b) and (15b) are further supported by the complementary distribution of (7a) and (17) when used to answer (14a) and (15a). In (7a), the positive readings of *gao* and *ai* are made explicit by the degree modifier *hen* 'very'. In (17), the comparative readings of *gao* and *ai* are made clear by the lower-scale intensifier *yidian* 'a little'. As reported in table 2, (7a) is a felicitous answer to (14a) but odd for (15a), but (17) is pragmatically odd as a response to (14a) but is a felicitous answer to (15a). In the context of (14a), the fact that (7a) is felicitous while (17) is odd indicates that (14a) seeks answers that express positive predications. Therefore, as a felicitous response to (14a), *gao* and *ai* in (14b) can only take the positive readings. Correspondingly, in the context of (15a), the fact that (7a) is odd but (17) is felicitous suggests that (15a) asks for answers that denote comparative predications. Thus, gradable adjectives in (15b) can only obtain the comparative readings.

(7a) Zhangsan hen gao, Lisi hen ai. (positive reading)
Zhangsan very tall Lisi very short
'Zhangsan is very tall, but Lisi is very short.'

(17) Zhangsan gao yidian, Lisi ai yidian. (comparative reading)
Zhangsan tall a little Lisi short a little
'Zhangsan is a little taller and Lisi is a little shorter.'

Table 2. The complimentary distribution of (7a) and (17) as the response to (14a) and (15a)

| | (14a) | (15a) |
|---|---|---|
| (7a) positive reading | √ | # |
| (17) comparative reading | # | √ |

In summary, (14b) and (15b) constrain context in different ways. (14b) requires that there is a contextually provided standard of tallness and an individual's height known from the context while (15b) requires that there are at least two individuals' heights to be retrievable from the context. Thus, BGA predicates in (14b) can only denote positive predications in the given context in (14a), and BGA predicates in (15b) can only express comparisons between two individuals in the context given in (15a).

2.4 *gen…xiangbi* comparisons

Another structure is *gen…xiangbi* comparisons. See the example in (8), repeated below. In (8a), *hen* 'very' co-occurs with the gradable adjective *gao* 'tall' and *gao* can only allow a positive reading. In (8b), *hen* 'very' does not co-occur with gradable adjectives, and the interpretation of the gradable adjective *gao* 'tall' depends on context. See (18a) and (19a) for example contexts. As demonstrated in (18b) and (19b), the string-identical utterance *Gen Zhangsan xiangbi, Lisi gao* denotes different kinds of predication when used in different contexts. As an answer to (18a), (18b) can only denote a positive predication, and *gao* 'tall' in (18b) can only mean 'positively tall'. On the other hand, when (19b) is used in the context of (19a), it can only denote a comparative predication, and *gao* in (19b) can only mean 'taller than someone known from context'.

(8) *gen…xiangbi* comparisons
a. Gen Zhangsan xiangbi, Lisi hen gao. (positive reading)
with Zhangsan compare-with Lisi very tall
'Compared to Zhangsan, Lisi is very tall.'
b. Gen Zhangsan xiangbi, Lisi gao. (positive/comparative reading)
with Zhangsan compare-with Lisi tall
'Compared to Zhangsan, Lisi is tall/taller.'

(18) a. *interlocutor A*:
Gen Zhangsan xiangbi, Lisi gao ma?
with Zhangsan compare-with Lisi tall SFP
'Compared to Zhangsan, is Lisi tall?'

b. *interlocutor B*:
Gen Zhangsan xiangbi, Lisi gao (a). (positive reading)
with Zhangsan compare-with Lisi tall SFP
'Compared to Zhangsan, Lisi is tall.'

(19) a. *interlocutor A*:
Gen Zhangsan xiangbi, shui gao?
with Zhangsan compare-with who tall
'Compared to Zhangsan, who is taller?'
b. *interlocutor B*:
Gen Zhangsan xiangbi, Lisi gao (a). (comparative reading)
with Zhangsan compare-with Lisi tall SFP
'Compared to Zhangsan, Lisi is taller.'

The positive/comparative interpretation of *gao* 'tall' in (18b) and (19b) is supported by their difference in choosing the felicitous context. As a response to (18a), (18b) is felicitous in the context of (20a), but not in (20b). See the notations under the column (18b) in (20). Note that (20a) and (20b) differ in the degree of difference between Zhangsan's height and Lisi's height. In (20a), Lisi is taller than Zhangsan by 10 cm. In (20b), Lisi's height exceeds Zhangsan' height by 2 cm. The fact that (18b) is true in the context of (20a) but not in (20b) suggests that in order for (18b) to felicitously occur, there must be a significant difference between Zhangsan's and Lisi's height. On the other hand, (19b) as a response to the *shui* 'who'-question in (19a) can felicitously occur in either (20a) or (20b), which indicates that *gao* in (19b) allows a crisp difference between Zhangsan and Lisi's height. See notations under the column (19b) in (20).

(20)

| | (18b) | (19b) |
|---|---|---|
| a. Zhangsan is 170 cm. Lisi is 180 cm. | (√) | (√) |
| b. Zhangsan is 170 cm. Lisi is 172 cm. | (X) | (√) |

Our discussion of (18b) and (19b) indicates that the BGA predicate *gao* in (18b) and (18b) denotes comparisons between two individuals but specifies different semantic relationship between the two individuals' degrees of tallness. In a given polar question context in (18a), the BGA predicate *gao* in (18b) can only mean 'positively tall'. *Gao* in (18b) specifies that the difference between the two individuals' degrees of tallness has to be significant. In the contrary, in a given *shui* 'who'-question context in (19a), the BGA predicate *gao* in (19b) does not require the existence of a significant difference between the two individuals' degrees. Instead, *gao* in (19b) allows for an insignificant difference between the two individuals' degrees of tallness and *gao* can only take a comparative reading.

The conclusion regarding (18b) and (19b)'s contextual constraints is further supported by the fact that (19b) can be immediately followed by comparative predications such as (21), but (18b) cannot. In (21), *yi dian* 'a little/a bit' is used to modify the gradable adjective *gao* and *gao* takes a comparative reading. In addition, the degree modifier *yi dian* 'a little/a bit' specifies that Lisi is only a bit taller than the arbitrary individual known from the context. The fact that (19b) can be immediately followed by (21) indicates that (19b) and (21) have the same requirements on felicitous context, i.e., there are at least two individuals know from the context and one individual's

degree of tallness exceeds the other. On the other hand, the fact (18b) cannot be followed by (21) indicates that (18b) and (21) cannot felicitously occur in the same context. Because the predicate *gao yi dian* 'a little taller' in (21) specifies that the difference between the two individuals' height is not significant, we can conclude that (18b) cannot be felicitously uttered in such context. In other words, the (18b) is not felicitous in a context where there is only a crisp difference between the two individuals' degrees of tallness.

| | | | | | | |
|---|---|---|---|---|---|---|
| (21) | Danshi | Lisi | zhishi | gao | yi dian. | (comparative reading) |
| | but | Lisi | only | tall | a little | |
| | 'But Lisi is only a little taller.' | | | | | |

**3. Conclusion**

This study identifies four structures in which a BGA predicate can have either a positive or a comparative reading depending on the context. The four structures are the simple gradable adjective predications, polar questions, the contrastive focus construction, and *gen…xiangbi* comparisons. This study cites empirical data and tests to suggest that the interpretation of a BGA predicate depends on context in the above four structures, which challenges the widespread assumption that a BGA predicate in the above four structures can only have one reading in all contexts.

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