CHAPTER 3

GESTURAL BEATS, GROUNDING AND INFORMATION STATE

This chapter mainly investigates and discusses gestural beats in Chinese narrative discourse at the pragmatic level with respect to grounding and the information state. The directions of gestural beats are not especially distinguished in the discussions here because the relationship among gestural beats, grounding, and information state is mainly under the focus as the speaker narrates the story to the listener. The chapter is divided into three sections. The first section analyzes and discusses the relationship between gestural beats and grounding. Then, the further issue about the relation between this hand movement and the information state of speech is discussed in Section 3.2. The correlation among grounding, information state, and gestural beats is also examined here. Finally, a summary of findings is given in the last section.

3.1 Is There any Relationship Between Gestural Beats and Grounding?

This section investigates if there is any relationship between gestural beats and

grounding. Previous studies have indicated that grounding in narrative discourse mainly consists of two structures—Foreground and Background.

Foreground is composed of a series of events with temporal order corresponding to the actual story line (Hopper 1979, Hopper & Thompson 1980). In other words, foreground clauses move and/or introduce the event forward. In contrast, background clauses are "supportive material which does not itself narrate the main events" (Hopper 1979:213). They do not "immediately and crucially contribute to the speaker's goal, but support, amplify, or COMMENT ON the narration" (Hopper 1979:215, Hopper & Thompson 1980:280). Moreover, Chui's (2002:170) study also suggests that "the background statements can be time and space orientation, a reason, the main character's mentality, pre-announcement, identification of the main character, and a generalization." The following Examples (14) and (15) illustrate gestural beats used in the foreground and background, respectively.

Example (14) is a situation for using a gestural beat in the foreground. In the excerpt, the speaker is describing an event where a crab nipped Mickey's dog "Pluto" by relaying the chronological events of this topic in the story line itself, which can be referred to in the ninth topic of the main story line in Appendix A in more detail. A beat gesture co-occurred with the verb *jia* 'to nip.'

(14)   A: ..ta   de   gou,_
              3SG   POSS   dog
              ..jiushi gen   yi   zhi   pangxie zai%,\
              EMP   with   one   CL   crab   at
              …zai nabian yong,\
               at   there   use
              ..jiushi,\
              EMP
              …ta   gen   pangxie wan,\
               3SG   with   crab   play
              ..ranhou,\
              then
→   ..pangxie **jia**   ta   bizi,_
              crab   nip   3SG   nose

    jia 'to nip': right hand at waist level flicks down quickly

              ..jia   ta   de   yiba,_
              nip   3SG   POSS   tail
              ..tamen liang   ge   dachengyituan./
              3PL   two   CL   fight with each other

    A: 'His (Mickey's) dog plays with the crab. Then, the crab nips the
        dog's nose and tail and they fight with each other.'

In the following Example (15), the event is that Mickey, Minnie, the horse and

the cow are cheered up after winning a fight against an octopus. The speaker's

statement is about the characters' mentalities and attitudes. This is a feature of a

background statement. A beat gesture co-occurs with the first syllable *quan* of *quanbu*

'all' in the backgrounded clause.

(15)　　A: …ranhou,\
　　　　　　　then
　　　　　　…jiu%,\
　　　　　　　EMP
　　　　　　..bei%,\
　　　　　　　BEI
　　　　　　…taozhu　bozi._
　　　　　　　catch　　neck
　　　　　　…diaodao　dahai　limian　qu　le.\
　　　　　　　drop into　ocean　inside　to　PRF

　　　　　　..na　　dangran　a,_
　　　　　　　EMP　of course　PRT
　　　　　　..na　　houlai,/
　　　　　　　EMP　then
　→　　…**quan**bu　de　　ren　　jiu　　huanhu,_
　　　　　　　all　　　POSS　people　EMP　cheer up

　　　1st syllable of *quanbu* 'all': right hand flicks to the right and left
　　　hand flicks to the left simultaneously

　　　A: 'Then, (the octopus's) neck is caught. He falls into the ocean.
　　　　Then, of course, all the people (Mickey, Minnie, the horse and
　　　　the cow) are cheered up.'

Table 6 shows the distribution of the frequency of the grounding in Chinese

narratives across five gestural types. Four gestural types are investigated in regard of

grounding in order to compare with McNeill's (1992) claim. He proposes that a

narrative consists of three levels—the narrative level, the metanarrative level, and the

paranarrative level. Iconics occur at the narrative level where the speaker conveys the

events of the story itself following temporal order; metaphorics or deictics appear at

the metanarrative level where speakers make explicit information about the structure of the story, and deictics may occur or there is no gesture at all at the paranarrative level where speakers convey information of their own experience of observing the film and their reaction to the events of the narrative itself. In Table 6, the statistics show that most gestures occur in the foreground (85.3%). The total amount of each gestural type shown in the table also shows that two types of gestures are commonly used when speakers recount the plot lines of the cartoon, namely iconic gestures (185 instances out of 505) and beats (291 instances out of 505).

Table 6. Frequency Distribution of Grounding in Chinese Narratives across Four Gestures

	Foreground		Background		Total	
Gestural types	n	%	n	%	n	%
Iconic gestures	153	82.7	32	17.3	185	100.0
Metaphoric gestures	6	75.0	2	25.0	8	100.0
Deictic gestures	19	90.5	2	9.5	21	100.0
Beats	**253**	**86.9**	**38**	**13.1**	**291**	**100.0**
Total	431	85.3	74	14.7	505	100.0

In Table 6, the insignificant χ^2 value [6] indicates that grounding can not distinguish gestural types produced in Chinese narrative discourse. However, in this thesis, the focus is on the type of gestural beats used in utterances of narrative data. In

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[6] The Chi-square test for the distribution of grounding in Chinese narratives across four different gestures is: $\chi^2_{3, 0.05} = 2.753$.

Table 6, the occurrence of beats is 86.9% in foregrounded clauses (253 instances out

of 291).

In combining the findings of Table 6, it is found that grounding status can not

be distinguished by different gestural types. This result supports Chui's (2005b:648)

claim that "gestural types *per se* do not distinguish topical and non-topical

information" in Chinese conversational discourse. Speakers gesture more when

conveying foreground information, regardless of gestural types, in this study. This

does not support McNeill's (1992) proposal that only the gestural type of iconics

appears at narrative levels (foreground).[7] He claims that "iconics appear at the

narrative level, where the content consists of story events; iconic gestures exhibit

these events" (McNeill 1992:189). However, the results in the present study show that

beats can also occur at this level.

Moreover, in narratives, speakers can decide to operate one of three different

levels, i.e., narrative (foreground) and metanarrative and paranarrative levels

(background). A description of the three levels was given in Chapter 2. The first level

is "narrative" in which the speaker conveys the events of the story itself following

temporal order. The second one is "metanarrative" in which speakers make explicit

information about the structure of the story as they build it up. Finally, in the

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[7] Also refer to Figure 1 in Chapter 2.

"paranarrative" level, narrators step out of the storytelling role and convey

information of their own experience of observing the film and their reaction to the

events of the narrative itself. In the thesis, I use the expression "foregrounded clauses"

to refer to McNeill's (1992) "narrative" clauses and use one expression

"backgrounded clauses" to indicate "metanarrative" and "paranarrative" clauses.

　　Here are three examples to present the shifts between foreground (narrative

level) and background (metanarrative and paranarrative levels). In Example (16), the

speaker uses beat gestures to mark the shift from the narrative level (foreground) in

which the speaker pushes the events of the story line forward by telling the plot line in

its actual order as it occurs in the cartoon film to the metanarrative level (background)

to provide explicit information about the can the cow is carrying.

(16)　　A: …fanji　　　de　　　fangshi　ne,_
　　　　　　strike back　POSS　a way　　PRT
　　　　..jiushi% --
　　　　　exactly
　　　　..yikaishi　　　　shi　muniu,/
　　　　　at the beginning COP　the cow
　　　　..na　le　yi　ge　guanzi,\　　　　(foreground/narrative)
　　　　　take PRF one CL　can
→　　　…(1.2)**jiu**shi　gangcai　　　ta　　chi% --　(background/
　　　　　　　exactly　a while ago　3SG　eat　　　metanarrative)

　　1st syllable of *jiushi* 'exactly': left hand at waist level forms the
　　gesture of taking a can and then flicks down quickly

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…chidongxi          de        tieguan,\
  eat something     POSS      can
...ta    limian   you      zhuang  heise    de       nage.\
 3SG    inside   there is to pack  black    POSS     that
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A: 'The way that was used to strike back was that, at the beginning, the cow was carrying a can, and it was exactly same can as the can from which she'd just eaten and there were black things inside it.'

Furthermore, the speaker can also shift from the narrative level (foreground) in which the speaker re-tells the event in chronological order to the listener and only narrates what happened in the cartoon film to the paranarrative level (background) to express his or her opinion about the story itself as shown in Example (17).

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(17)      A: …pangxie,\
              crab
          ..yijing    paodiao le,\
            already   leave  PRF
          …ta    jiu    ziji     wan    ziji    de.\     (foreground/
           3SG   then   SELF     play   SELF    PRT        narrative)
  →       ..yinwei  disinai  de        katong,_  (background/paranarrative)
            because  Disney   POSS      cartoon
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1st syllable of *disinai* 'Disney': index finger of right hand at waist level flicks to left side; index finger of left hand at waist level flicks to right side; then, two fingers touch each other

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          …butai   xuyao   nazhong,\
            NEG     need     that
          …wenzi   bu      xuyao duibai,/
            words   NEG    need  conversation
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…jiushi   guangkao   donghua,\
  exactly   depend on   animation
…jiuneng   rang   ni   juede,/
  can   IMP   2SG   feel
.. juede,/
   feel
..hen   you   yisi.\
  very   be   meaningful

A: 'The crab has left. Then, he (Pluto) plays by himself. It is a Disney cartoon, so it does not need words or conversation. It just depends on the animation to make you feel interested.'

In Example (18), the speaker uses beat gestures to mark the shift from the paranarrative level (background) in which the speaker at first re-tells what he has seen in the film and then provides explicit information as to why he says that everyone is playing at the beach, to the narrative level (foreground) in which the speaker narrates the story itself with the occurrences of its actual order in the cartoon film and pushes the events forward. In this excerpt, the shift from one level to the other is accompanied by the use of a gestural beat.

(18)   A: …(1.5) tamen   shi   xian%,_
                  3PL   COP   first
…paoqu,\
   run
…(1.4) haitan nabian wan   ma.\
          beach there   play   PRT
…yiwei   wo   kanjian tamen meigeren douyou./ (background/
   because 1SG   see   3PL   everyone include   paranarrative)

→   …(.8) **yi**   tou   haoxiang,\   (foreground/narrative)
             one CL   seem like

yi 'one': right index finger at waist level flicks toward left side; left
        index finger at waist level flicks toward right hand; then,
        both of them touch by accident

…(1.6) nage,\
      that
…(.8)ma,\
    horse
..haoxiang   jiushi,\
  seem like   EMP
…xian   paoqu tiaoshui ma.\
  at first go   dive   PRT

A: 'They go to beach first and play there. Because I see everyone
    appears. It seems like a horse. He goes to dive first.'

Table 7 shows the shifts among different levels across various gestural types when speakers tell a story. The results reveal that the majority of gestures that speakers produce to signal the shifts between different levels are beats.

Table 7. Frequency Distribution of Signaling Shifts across Four Gestural Types

	Foreground → Background ←	
	n	%
Iconic gestures	6	23.1
Metaphoric gestures	0	0
Deictic gestures	0	0
Beats	**20**	**76.9**
Total	26	100.0

According to the statistics, beat gestures seem to make speakers shift temporarily from plot lines to non-plot lines of narratives or vice versa in the study. In fact, this phenomenon takes place very often in narratives. To further analyze the statistics of beats, it is found that the proportion of shifting from foreground to background by using a beat (55.0%, 11 instances out of 20) is about equal to that of shifting from background to foreground (45.0%, 9 instances out of 20). Therefore, beat gestures can shift to any level of narrative structures to act as boundaries. More specifically, the findings of the study also support another claim proposed by McNeill in 1992, namely "the occurrence of beats is related to discourse structure where there are shifts among the narrative, metanarrative, and paranarrative levels of discourse."

3.2 Are Gestural Beats and Information State Related?

This section investigates the relationship between gestural beats and the information state in Chinese narratives. Based on Chui's (2005b:644) study, the flow of information throughout a discourse is a dynamic process. Thus, a referent is analyzed as 'new,' if it has never been mentioned in the previous context at the moment of narrating and it is analyzed as 'given,' if it has been mentioned previously at the given time of uttering. A referent here indicates an argument, usually identified by the use of a certain noun or a predicate. In other words, the information state of

nominal and verbal referents in clauses accompanying gestrual beats is considered. In

the following table, the statistics are shown by considering both nouns and verbs only.

In the data of the present study, 130 nouns and 90 verbs accompany the use of beat

gestures as shown in Table 4 (p. 19). Therefore, the total amount of gestural beats is

220 for discussing this gestural type and the issue of the information state.

Table 8. Frequency Distribution of Information State in Gestural Beats

	Given		New		Total	
	n	%	n	%	n	%
Beat gestures	73	33.2	**147**	**66.8**	220	100.0

Table 8 indicates the distribution of the frequency of information states for beat

gestures. This type of gesture often occurs in conveying new information. It

outnumbers given information by two times. McNeill and Levy (1993) have proposed

that gestures can be affected by the information state of the associated referents. Of

the 220 gestural beats in Table 8, there are 73 instances (33.2%) of the occurrence of

beats accompanying given information, while there are 147 instances (66.8%) of beats

accompanying new information. Chui (2005b) noted that Chinese speakers tend not to

gesture for old information. In other words, speakers tend to initiate hand movements

while presenting new information. In addition, narratives are a discourse process

whereby information is conveyed dynamically. It is reasonably assumed that there is a

preference to use new information to advance the process of the communication.

Table 9 indicates the frequency distribution of information states in both foreground and background for beat gestures. The results show that this type of gesture often occurs in conveying new information. The utterance of new information outnumbers that of given information by more than two times. Foregrounded clauses are used more often than backgrounded ones in conveying new information (70.2%, i.e., 139 instances out of 198), while backgrounded clauses are used more in conveying given information (63.6%, i.e., 14 instances out of 22).

Table 9. Frequency Distribution of Information State vs. Grounding in Gestural Beats

	Given		New		Total	
	n	%	n	%	n	%
Foreground	59	29.8	**139**	**70.2**	198	100.0
Background	14	63.6	8	36.4	22	100.0
Total	73	33.2	147	66.8	220	100.0

To further analyze the correlation between the information state and grounding for gestural beats, Table 10 shows the percentages of the statistics across the table. In Table 10, it also conforms to the result that new information in foregrounded clauses is usually accompanied with beat gestures (63.2%, 139 instances out of 220). The following table presents the result.

Table 10. Cross-table Analysis of Information State and Grounding in Gestural Beats

	Given		New		Total	
	n	%	n	%	n	%
Foreground	59	26.8	**139**	**63.2**	198	90.0
Background	14	6.4	8	3.6	22	10.0
Total	73	33.2	147	66.8	220	100.0

The findings in Tables 6 and 8 supports Chui's (2005b) claim that Chinese speakers tend to gesture new information in topical clauses. The results of Tables 9 and 10 so far also present that gestural beats are mainly produced for new information in foregrounded clauses. Although Chui's (2005b) study and this thesis investigate different gestural types, the results reveal that there is a similar preference for the two different gestures.

3.3 Summary

The results revealed in this chapter are as follows. First, gestural beats can appear in both foregrounded and backgrounded clauses. In other words, this type of gesture can appear anywhere. This does not support McNeill's (1992) findings. He proposes that only iconic gestures can appear in narrative levels (foreground). However, in my study, gestural beats can also occur at this level.

Second, the function of the occurrence of beat gestures is to signal shifts between levels of the narrative structure. Finally, given information usually appears in

backgrounded clauses while the finding that new information usually occurs in foregrounded clauses in combination with the occurrence of beats supports Chui's claim (2005b) where she proposes that iconic gestures are mainly produced for new information in topical clauses when investigating Chinese conversation. Although this thesis examines a complete different gestural type, beats, and different spoken data, that of Chinese narratives, the finding indicates that the two different gestural types have the same preference for conveying new information in foreground.