

# Discourse Studies

<http://dis.sagepub.com/>

---

## **Conversational coherence and gesture**

Kawai Chui

*Discourse Studies* 2009 11: 661

DOI: 10.1177/1461445609347230

The online version of this article can be found at:

<http://dis.sagepub.com/content/11/6/661>

---

Published by:



<http://www.sagepublications.com>

**Additional services and information for *Discourse Studies* can be found at:**

**Email Alerts:** <http://dis.sagepub.com/cgi/alerts>

**Subscriptions:** <http://dis.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

**Citations:** <http://dis.sagepub.com/content/11/6/661.refs.html>

>> [Version of Record](#) - Dec 8, 2009

[What is This?](#)

# Conversational coherence and gesture



*Discourse Studies*  
Copyright © 2009  
SAGE Publications  
(Los Angeles, London, New Delhi,  
Singapore and Washington DC)  
www.sagepublications.com  
Vol 11(6): 661–680  
10.1177/1461445609347230

KAWAI CHUI

NATIONAL CHENGCHI UNIVERSITY, TAIWAN

**ABSTRACT** The present study claims that the use of spontaneous gestures can contribute to accomplishing coherence in sequential conversational exchanges. Three types of speech-accompanying gestures were analyzed in Chinese conversation. Based on the syntactic–semantic relation with the co-occurring utterance, the first type is associated with words that do not convey explicit meaning; the second type is associated with covert constituents; the third type does not have any linguistic affiliates. They suggest different ways in which gesture adds information to the propositional content of the associated utterance or to the content of the speech event under discussion. They also play a role in achieving conversational coherence: on the part of the speaker, it is only by using the various types of gesture that a current speaker can make the message to be conveyed in the utterance complete. On the part of the next speaker, the recognition and negotiation with the former speaker of the gestured information is a way to acknowledge or confirm mutual knowledge. The collaborative efforts contribute to the coherence of the talk in the subsequent interaction.

**KEY WORDS:** *Chinese discourse, collaboration, conversational coherence, gesture*

## 1. Introduction

Coherence has been studied in many academic fields from different perspectives. In linguistics, as reviewed by Schiffrin (1985: 660–1), coherence can be built upon textural structure (Van Dijk, 1972), underlying speech acts and surface structure (Labov and Fanshel, 1977), linguistic cohesive links (Halliday and Hasan, 1976), the connections among the saying, the meaning, and the doing (Halliday, 1978), an integration among various levels of linguistic structure (Gumperz, 1982), metalinguistic phrases (Schiffrin, 1980), and paraphrases (Schiffrin, 1982). Van Dijk (1977: 95) also distinguished ‘global coherence’ between large chunks of discourse, and ‘local coherence’ between adjacent sentences in texts. In conversational discourse, coherence has been discussed with

respect to form, structure, and strategy (Craig and Tracy, 1983). Schiffrin (1985) studied coherence in conversational pairs, and Schegloff (1990: 72) examined coherence with respect to the sequential organization of talk. Linell and Korolija (1997), on the other hand, claim that it is topical content that makes episodes internally coherent. In all of these various approaches, coherence in discourse, by and large, rests upon 'what is said, what is meant, and what is done . . . at both local and non-local locations in talk' (Schiffrin, 1985: 662).

In regard to 'what is meant' in conveying information, most of the research has focused on the prosodic, structural, semantic, and pragmatic aspects of utterances (Bublitz et al., 1999; Craig and Tracy, 1983; Givón, 1995; Gumperz, 1982; Halliday and Hasan, 1976; Linell and Korolija, 1997; Schegloff, 1990; Schiffrin, 1985; Tannen, 1984; Van Dijk, 1977). However, the linguistic information alone does not always provide a complete view of the message that the speaker intends to communicate. The spontaneous gestures that accompany speech also convey what is intended to be meant, because 'gestures are an integral part of language as much as are words, phrases, and sentences' (McNeill, 1992: 2). Not only can they carry meaning, they can also play a role in constructing connections in discourse. In McNeill's (1992) classification of gesture, *cohesives* are a type that functions to tie together thematically related but temporally separated parts of the discourse by the repetition of the same iconic, metaphoric, deictic, or beat gestures. Just like the linguistic cohesive devices (Halliday and Hasan, 1976), hand actions constitute cohesive links in discourse (McNeill and Levy, 1993; Schegloff, 1984). In addition to the recurrence of a form of gesture that marks referential continuity, McNeill and Levy (1993) found that space and handedness also create cohesion as narrators separate characters within different parts of the gestural space, or use one hand or two hands for the presupposed and new information, respectively. Cohesion of gesture is a way to establish coherence, but coherent talk does not necessarily rest upon the reappearance of the identical form, handedness, or space.

The present study shows that gesture, be it recurrent or not, plays a role in the achievement of conversational coherence. Schiffrin (1985: 659) defines 'conversational coherence' as 'the joint creation and display of connections between utterances, such that what one speaker says can be heard to follow sensibly from what the other has said.' It is also a dynamic process, in that the meanings are jointly negotiated in discourse (Anderson, 1995; Coates, 1995; Geluykens, 1999; Goodwin, 1995). Thus, collaboration and negotiation are essential in creating coherent talk. We will investigate how the use of spontaneous gestures on the part of a current speaker and the recognition of the gestured message on the part of a next speaker can contribute to accomplishing coherence in sequential conversational interaction.

## 2. *The database*

The data used here include casual, unpremeditated, multi-party conversations in Mandarin Chinese among people who knew each other. Some of the data are

from the NCCU Corpus of Spoken Mandarin, which has been documenting the daily use of Mandarin spoken in Taiwan since 2006.<sup>1</sup>

The subjects were free to find topics of common interest; they were not told the particular focus of the research. The subjects were filmed for approximately an hour, with a visible camera and in full-body shot. One stretch from each talk, about twenty minutes of talk, in which the students were more comfortable in front of the camera, was then extracted.

In the database, many spontaneous gestures express something similar to what is expressed in the associated linguistic constituents. In Example (1), the topic of the talk is the way in which Speaker A's past part-time job at the library was so hard: the speaker had to carry a document and take it personally to a number of different places, from the library to the Administration Building, then back to the library, and then to the Social Sciences Information Center. The manual actions include three iconic gestures associated with the verbs. First, at the moment of articulating the verb *na* 'take' (Line 1), both A's hands rise from the thighs, and the arms cross at belly level as if holding a document. The second iconic action is performed at the first occurrence of the verb *song* 'send' (Line 1): both hands move to the upper right periphery, conveying the idea of taking a document to the Administration Building. They then move back a little for the second mention of the same verb (Line 2), depicting the action of bringing the document back to the library. Finally, both hands move to the upper left periphery while producing the last verb *song* (Line 3) to signify taking the document to another place – Social Sciences Information Center.

(1) → 1 A: ...ranhou wo jiu...(.7) na yi ge gongwen...(.6)song dao  
 then 1SG thus hold one CL document send to

na 'to hold': both hands rise from thighs, and arms cross at belly level (pic. 1 in Figure 1)

song 'to take': both hands move to upper right periphery (pic. 2 in Figure 1)

→ 2 ...(.7) xingzhengdalou...(.6) song hui lai  
 Administration Building send back

song 'to take': both hands move back a little (pic. 3 in Figure 1)

3 ...song qu shezizhongxin  
 send to Social Sciences Information Center

song 'to take': both hands move to upper left periphery (pic. 4 in Figure 1)

A: 'Then I held a document, and took it to Administration Building. After that I brought it back to the library. Then I took it to Social Sciences Information Center.'



pic. 1

pic. 2

pic. 3

pic. 4

FIGURE 1. Gestural depiction of taking a document to different places

As the meanings of the hand movements in Example (1) are also verbalized by the associated words, both the imagistic and linguistic representations can work together to establish coherence. Nevertheless, to manifest the role of gesture in achieving coherent talk through participants' collaboration and negotiation, this study rather focuses on the gestures that express a meaning which is not expressed verbally and which provides information to the associated speech.

### 3. Types of gesture and conversational coherence

Gumperz et al. (1984: 3) remarked that '[i]n spoken language, much semantic and pragmatic information concerning what the talk is about, and how it is to be chunked, is signaled through prosody, physical context, gesture, paralinguistic cues, etc.' Schegloff (1984) also mentioned that examining talk and body behavior together is necessary and important in talk-in-interaction. In this section, three types of speech-accompanying gestures will be analyzed, based on the syntactic–semantic relation with the co-occurring utterance. They suggest different ways in which gesture adds information to the propositional content of the associated utterance or to the content of the speech event under discussion. Furthermore, these various types of gesture make a contribution to conversational coherence as a collaborative achievement between the participants in sequential talk-in-interaction.

#### 3.1 GESTURES THAT ARE ASSOCIATED WITH LEXICAL CONSTITUENTS WITH VAGUE MEANING

The first type of gesture is affiliated to words that do not convey explicit meaning, such as the adverbial *zheme* 'like this' and the demonstrative *nage* 'that' in Mandarin Chinese. It is the hand actions accompanying these lexical constituents that provide referential meanings. The iconic movement in Example (2) expresses the meaning of the pro-adverb *zheme* in the discussion about the size and height of a gas can. Speaker B, at the time she articulates the first syllable *zhe* of *zheme*, raises her right hand to shoulder level with the palm open and facing downward while her left hand is at waist level with the palm open yet facing upward. The distance between the palms thus signifies the height of the gas can.

- (2) A: . . .shenme shi wasiguan  
           what COP can of gas  
 C: . . .jitushi xiao guan zheyangzi  
           that is small can like this  
 A: (0)duo xiao  
           how small  
 → B: . . .(.9)zheme gao ba  
           like this high PRT

*zheme* 'like this': right hand at waist level (pic.1 in Figure 2) raises to shoulder level with palm open and downward; left hand is at waist level with palm open and upward (pic. 2 in Figure 2)

- A: 'What's 'a can of gas'?'  
 C: 'It's a small can, like this.'  
 A: 'How small is it?'  
 B: 'It's about this high.'



pic. 1



pic. 2

FIGURE 2. Gestural depiction of the height of a gas can

The following conversational extract (3) between two male participants, M1 and M2, exemplifies the use of another pro-form *nage*. They are talking about the shape of the body of a friend of theirs. M1 mentions that the girl was fat at the time that he saw her at a cram school, but that she had become very thin when he saw her again later in the school library in college. As M2 in his third turn tries to provide a reason for the change in the girl, his utterance includes *nage* 'that' as the main predicate (Line 6). Again, a gesture is produced 'to make more specific the meaning of something that is being said in words' (Kendon, 2004: 176): his right hand first rises up with the fingers open from the thigh to the front of the chest at the moment of saying the adverbial *man* 'quite', and then the left hand also starts rising up with the fingers open. Both hands move up and down four times from the left to the right, depicting the idea of the changes in the body figure.

- (3) 1 M1: ..ta nage shihou ta qu kaoshi deshihou wo jiushi wo zai buxiban  
 3SG that time 3SG go test when 1SG that is 1SG at cram school  
 kandao ta jiu nage shihou jiu zhende jiu.. ren rou.. zhengge  
 see:RESULT 3SG PRT that time EMP really PF person REPAIR whole  
 ren shi rourou de.. ranhou jieguo ta kaoshang deshihou wo jiu zai  
 person COP fat PRT then however 3SG test:RESULT when 1SG then at  
 xuexiao tushuguan kandao ta wa.. zenme name shou  
 school library see:RESULT 3SG PRT how such thin
- 2 M2: ..ta nage shihou chao haoxiao ta nage shihou wo zai lu shang jiu...  
 3SG that time super funny 3SG that time 1SG at road on then  
 yushuting.. shi shei ba ni dacheng zhege yangzi  
 Yu Shuting COP who BA 2SG beat:RESULT this shape
- 3 M1: ..@@@
- 4 M2: ..kuai gaosu wo.. ranhou  
 quick tell 1SG then
- 5 M1: (0)eh meiyou ranhou wo jiu juede... wo juede ta hao lihai weishenme keyi  
 PRT NEG then 1SG then think 1SG think 3SG so good why can  
 shoucheng zhege yangzi  
 thin:RESULT this shape
- 6 M2: ..qishi ta benlai jiu man hui.. nage a  
 actually 3SG originally EMP quite good at that PRT

nage 'that': both hands at each side at chest level start to move up and down four times

(pics. 1–4 in Figure 3)

→ 7 M1: . .hai man neng tiaojie jiu dui le  
still quite can adjust EMP right PRT

tiaojie 'adjust': both hands at each side at chest level start to move up and down three times

(pics. 1–3 in Figure 4)

→ 8 M2: . .dui a ta. . ta ye shi pang shou pang shou pang shou zheyang  
right PRT 3SG 3SG also COP fat thin fat thin fat thin like this

9 M1: . .dui  
right

→ 10 M2: . .keshi qishi wo juede pang ye meiyou shenme. . ye meiyouguanxi a  
but actually 1SG think fat also NEG what also NEG:matter PRT

→ 11 M1: . .shi a  
COP PRT

M1: At that time, when she went to take a test, I, that is, I saw her at the cram school. At that time, she really . . . she was fat. However, after she went to college, I saw her at the school library. Wow! How could she be so thin!

M2: It was so funny at that time. At that time, I was on the street and I saw her, and I said 'Yu Shuting, who beat you up like this?'

M1: (laugh)

M2: Quick, tell me. Then,

M1: Eh, no. Then I thought, I thought that she was really good. How could she become so thin?'

M2: Actually she was originally quite good at that.

M1: She is quite good at adjusting her body.

M2: Right. She . . . she's fat, and then thin, and then fat, and then thin, and then fat, and then thin, like this.

M1: Right.

M2: But actually I think that being fat doesn't matter. It doesn't matter.

M1: Right.

The two occurrences of hand actions mentioned above show clearly that the gestured information is part of the message intended to be conveyed, and that



pic. 1

pic. 2

pic. 3

pic. 4

FIGURE 3. *Gestural depiction of body-figure adjustment*



FIGURE 4. A return gesture to depict body-figure adjustment

it is expressed by the gestural modality exclusively. To achieve conversational coherence, 'a speaker is expected to formulate an utterance so that its message is accessible to the hearer, who is then expected to demonstrate, through a next utterance, proper attention to that message' (Schiffrin, 1985: 640). Example (3) makes it evident that the next speaker, M1, in his next turn (Line 7), recognizes the gesture and negotiates its meaning with M2 by hand movement and language simultaneously, copying gesture and speech of the former speaker to a certain extent: M1 imitates M2's use of the adverbial *man* and the modal *hui* 'can' (Line 6), replacing *hui* with another semantically equivalent modal word *neng*. At the same time, he also performs a 'return gesture' (de Fornel, 1992) or 'gestural mimicry' (Kimbara, 2006) while verbalizing *man*, by copying the handshape of M2's gesture, its handedness (both hands) and the direction of movement (up and down).<sup>2</sup> Finally, even the temporal patterning of speech and gesture is also copied, in that the stroke phase of both gestures begins at the adverbial word *man*.

While mimicry of gestures can be used to show acknowledgment and attentiveness (de Fornel, 1992) and to add meaning to the common ground, or even to construct the common ground (Kimbara, 2006), for M1 to produce a return gesture and articulate the verb *tiaojie* 'adjust' is to acknowledge what has been gestured, and at the same time, to negotiate with the former speaker that 'adjustment of body figure' is what the prior gesture means. M2 in his next turn (Line 8) confirms the meaning of the gesture by elaborating on the idea of figure adjustment and describing it as a cycle of becoming fat and then thin and then fat and then thin again. The recognition, negotiation, and confirmation in this three-turn sequence of interaction bear out a process of collaboration between the two participants to constitute a common ground, upon which coherence is accomplished. Coherent talk can then be assured in the subsequent exchanges about people gaining and losing weight (Lines 10 and 11).

### 3.2 GESTURES THAT ARE ASSOCIATED WITH COVERT CONSTITUENTS

The second type of gesture also provides information realized by the modality of gesture alone, but the associated constituent is covert and the clause as a whole is elliptical. In Example (4), the participants talk about whether using the same kind of shampoo continuously will make people lose their hair. F1, in her third turn, asks if F2 has the same problem. The question involves a missing argument – the 'direct object' of the verb *diao* 'lose', but the referent of the direct object, 'hair', is indicated by two deictic gestures: F1's right index finger points at her



own hair on the right side at the same time she produces the second occurrence of *you* 'have', and then she points at her hair on the left side while producing the first syllable *kai* of the verb *kaishi* 'start'.

- (4) F1: ..ruguo ni yizhi yong a ranhou..kai[shi]  
 if 2SG keep use PRT then start  
 F2: [m]  
 BC  
 F1: ..toufa jiu hui diao  
 hair then will lose  
 F2: ..o wo zhidao na shihou nimen zai taolun ma  
 PRT 1SG know that time 2PL PROG discuss PRT  
 → F1: ..ni xianzai..youmeiyou kaishi zai diao  
 2SG now have:NEG:have start PROG lose

hair: right index finger points to hair on the right while saying *you* 'have' (pic. 1 in Figure 5)

hair: right index finger points to hair on the left while saying *kaishi* 'start' (pic. 2 in Figure 5)

- F2: ..meiyou a  
 NEG PRT

F1: If you keep on using it, then you'll start to lose your hair.

F2: Mm.

F1: You will start to lose your hair.

F2: I know. You were discussing it at that time.

F1: Have you started to lose your hair now?

F2: No.



pic. 1



pic. 2

FIGURE 5. *Gestural depiction of hair*

Instead of a non-verbalized argument, the hand movement in Example (5) takes the place of a covert predicate. The subject of the talk has to do with a concert by Beyoncé. M2 did not go, but he realized from the news report that the concert must have been excellent. M2 first produces an utterance to express his feeling, starting with the first-person pronominal *wo* and the perceptual verb *juede* 'feel' (Line 13). The clause is elliptical because the following predicative complement is not finished. How he feels is instead gestured. M2 begins moving both hands to the sides at the chest level during the pause after *juede*. After producing a click of the tongue (as represented by TSK), he claps his hands together to make a short loud noise, signifying how regretful he is to have missed the concert.

- (5) 1 M2: ..eh... Beyoncé bushi.. zuotian yanchanghui o  
 PRT Beyoncé NEG:QST yesterday concert PRT
- 2 M1: ..shi zuotian [ma]  
 COP yesterday QST
- 3 M2: [zuotian] shierhao a... shibushi  
 yesterday twelfth PRT COP:NEG:COP
- 4 M1: ..hao hao haoxiang shi ba [[wo bu zhidao wo bu zhidao  
 REPAIR REPAIR seem COP PRT 1SG NEG know 1SG NEG know  
 shi na yi tian]]  
 COP which one day
- 5 M2: [[hai man ku de a]]  
 still quite cool PRT PRT
- 6 M1: ..ta lai ta bushi shenme yi lai jiu.. hua le  
 3SG come 3SG NEG:QST what as soon as come EMP spend PRF  
 sanbaiduowan  
 more than three million dollars
- 7 M2: ..(1.) haoxiang shi  
 seem COP
- 8 M1: ..ta mai le yi jian shenme... pi.. pidayi hai shenme de jiu hua  
 3SG buy PRF one CL what leather leather coat or what PRT EMP spend  
 yibaijiushijiwan  
 one million, nine hundred and ninety-nine thousand dollars
- 9 M2: ..fanzheng ta chao ku de a  
 anyway 3SG super cool PRT PRT
- 10 M1: ..ta chao.. chao ku de a  
 3SG super super cool PRT PRT
- 11 M2: ..erqie tingshuo ta de... jiushi... jiushi... dangtian...(6) wo you kan yixia ta  
 and hear 3SG POSS that is that is that day 1SG PRF see a bit 3SG  
 nage... baodao a  
 that report PRT
- 12 M1: ..uh-huh  
 BC
- 13 M2: ..wo juede... (TSK)  
 1SG think (TSK)

to feel regretful: both hands hit together (pics 1–2 in Figure 6)

- 14 M1: ..hen <L2 high L2 > o  
 very exciting PRT
- 15 M2: ..dui a... zenmehui mei qu le  
 right PRT how come NEG go PRT
- 16 M1: ..a jiu.. eh keshi ta piao mai hen gui eh  
 PRT PF PRT but 3SG ticket sell very expensive PRT
- 17 M2: (0) keshi wo yao buxi  
 but 1SG have to go to cram school

M2: Eh... didn't Beyoncé give a concert yesterday?

M1: Was it yesterday?

M2: Yesterday was the twelfth, wasn't it?

M1: Maybe. I don't know. I don't know which day the concert was held.

M2: She is quite cool.

M1: She came . . . didn't she spend more than three million as soon as she arrived?

M2: That's how she seemed.

M1: She bought a leather . . . leather coat or something, and it cost one million, nine hundred and ninety-nine thousand dollars.

M2: Anyway, she is so cool.

M1: She is very . . . very cool.

M2: And I heard that she, that is, on that day . . . I read a report about her.

M1: Uh-huh.

M2: I think . . . (TSK)

M1: It must have been very exciting.

M2: Right. How come I didn't go?

M1: Eh . . . but the tickets were very expensive.

M2: But I had to go to cram school.



pic.1



pic. 2

FIGURE 6. *Gestural depiction of regret*

The use of gesture in the two examples above, again, is indispensable to complete the message. However, the other participant(s) may not always recognize the gestured information, as can be seen in Example (5). After M2's gesture, M1 in his next turn (Line 14) does not make a response to M2's feeling of regret; his talk is still related to the news report about how exciting the concert was. M2 in his following turn (Line 15) expresses once again the meaning of the gesture by a rhetorical question *zenme mei qu* 'how come (I) didn't go?', to establish a common ground. Mutual knowledge is thus set up, which can be evidenced by M1's subsequent coherent response, as he shifts the subject matter away from the news report to M2's feeling of regret, mentioning the fact that the concert tickets were very expensive so as to make M2 feel better (Line 16). Such sequential interaction across participants makes it clear that conversational coherence relies on collaborative efforts as the participants negotiate to gain common ground, even though there may be a failure in the process of communication.

### 3.3 GESTURES THAT ARE NOT ASSOCIATED WITH LEXICAL CONSTITUENTS

Gestures of the third type do not have linguistic affiliates, be it overt or covert. Utterances are grammatically complete without hand actions; nevertheless, the

gestured information is still part of the message. Although the idea expressed by a gesture is not realized linguistically, the interpretation of the gesture is still based on the literal verbalization of the speech event at issue. The information being conveyed is explicit in context.

Some gestures of this type convey attitudinal information that is not tied to any verbal component of the utterance. In Kendon's (2004) classification, these gestures perform a pragmatic function. In Example (6), during a discussion about foreigners dining at a Chinese restaurant, Speaker A is talking about how two Chinese of Mainland origin considered that the habits of foreign people were very strange. The disdainful attitude of the Chinese is only represented manually, as the speaker's left hand sweeps outward three times consecutively in her third turn, while producing the two occurrences of the nominal *waiguoren* 'foreigner' and the predicate *guai* 'be strange'. Hand movements like these are often produced to convey a negative meaning subject to context.

- (6) A: (0) ranhou jiu shuo... xiang women huaqiao a.. zai waiguo a..  
 then EMP say like 1PL overseas Chinese PRT at foreign country PRT  
 [ta shuo youyici]  
 3SG say one time  
 B: [hum]  
 BC  
 A: ..jiu juede hen haoxiao... jiushi ta zai nage zhongguocheng ma... ranhou jiu  
 PRT feel very funny that is 3SG at that Chinatown PRT then EMP  
 you liang ge waishengren na zhong yijing yimin hen jiu [[le]]  
 there:be two CL Mainlander that kind already emigrate very long PRF  
 B: [[m]]  
 BC  
 → A: ..ta shuo.. zai nage zhongguocanguan zai nabian.. tamen waiguoren a  
 3SG say at that Chinese restaurant at there 3PL foreigner PRT  
 guai... tamen waiguoren a  
 strange 3PL foreigner PRT

disdainful attitude: left hand sweeps outward (pics 1–2 in Figure 7)

..xiguan jiushi guai..  
 habit COP strange

disdainful attitude: left hand sweeps outward (pics 3–4 in Figure 7)

...tamen waiguoren a  
 3PL foreigner PRT

disdainful attitude: left hand sweeps outward (pics 5–6 in Figure 7)

A: Then he said, 'Like us overseas Chinese, living in a foreign country.' He said that once.

B: Hum.

A: It was very funny. That is, he was in Chinatown, and there were two Mainlanders, the kind who had already emigrated for a long time.

B: Mm.

A: And in that Chinese restaurant, one Mainlander said, 'The foreigners, their habits are just strange. The foreigners . . .'



FIGURE 7. *Gestural depiction of the disdainful attitude*

Some gestures convey script-evoked information activated by the concepts verbally represented in words. Scripts are stored knowledge that consists of sequences to guide people to move from one activity to another (Schank and Abelson, 1977). People having knowledge of a script are familiar with the sequence of events involved in a particular situation. In communication, such knowledge can be expressed just by gesturing. The subject for conversation in Example (7) has to do with food utensils. The speakers are discussing the different kinds of utensils that could be used to serve food at a departmental gathering, including *jiazi* 'food tongs', *kuaizi* 'chopsticks', and *tangpiao* 'soup spoons'. The things that people do with these various kinds of tools is the familiar knowledge stored in the script of 'using food utensils', and this knowledge is activated by the concepts being verbally represented by the nominals *jiazi*, *kuaizi*, and *tangpiao*. The script-evoked information is depicted by three iconic gestures produced by Speaker A in the fourth turn. The first gesture is produced at the moment the first syllable *tang* of *tangpiao* 'soup spoon' is articulated: the speaker's right hand moves downward from chest level to form a bowl shape as if to dish some corn up with a soup spoon. The second one occurs while she says the nominal *shengcai* 'fresh vegetables': the speaker, whose right index finger and middle finger have already formed a chopstick gesture, moves the fingers forward and downward to depict picking up vegetables with chopsticks. The last gesture takes place at the moment of verbalizing the modal *keyi* 'can': the speaker maintains the chopstick fingers position, but moves her fingers back to depict putting the vegetables onto her own plate.

- (7) A: (0) *jiazi*. . . *weishenme zhi you yi [zhi]*  
           tongs why only there:be one CL  
 B: [ben-]. . . *dui a . . ni keyi duo nong ji zhi jia[[zi a]]*  
       REPAIR right PRT 2SG can more get few CL tong PRT  
 C: [[qi-]]. . . *qu nali nong*  
       REPAIR go where get  
 → A: . . . *wo juede yong kuaizi . . yong kuaizi . . yong kuaizi . . (1.1) yinwei ni kan . .*  
       1SG think use chopstick use chopstick use chopstick because 2SG see  
       *xiang . . yumi na zhong dongxi . . jiu yong tangpiao . . (.7) ranhou*  
       like corn that kind thing then use soup spoon then

to dish some corn up: right hand moves downward from chest level to form bowl shape (pics 1–2 in Figure 8)

chopsticks: right index finger and middle finger form chopstick gesture (pic. 3 in Figure 8)

- [shengcai]. . . keyi yong kuaizi  
 fresh vegetables can use chopstick
- to pick up fresh vegetables: chopstick gesture starts moving forward and downward  
 (pic. 4 in Figure 8)
- to put fresh vegetables onto the plate: chopstick gesture moves back (pic. 5 in Figure 8)
- B: [dui a]  
 right PRT
- A: Why is there just one pair of food tongs?
- B: You're right. You could get some more pairs.
- C: Where can I get them?
- A: I think we can use chopsticks, because, you see, for something like corn, you can use soup spoons. Then, for fresh vegetables, you can use chopsticks.
- B: Right.



pic.1                      pic. 2                      pic. 3                      pic. 4                      pic. 5

FIGURE 8. *Gestural depiction of dishing up some corn and putting fresh vegetables onto a plate*

Finally, some gestures signify the topics at issue. In daily interaction, conversation proceeds as people bring up different topics. Once a topic is established, the participants talk about it using orientations, descriptions, and elaborations. McNeill and Levy (1993: 364) have demonstrated that 'linguistic elements that are continuous with their context are at times accompanied by gesture'. Without lexical elements, gesture can still be used to maintain topic continuity, as evidenced by the topic of washing hair in Example (8). After the topic has been brought up, the participants elaborate on it and talk about the fragrance of different brands of shampoo. Speaker C first mentions the brand produced by Watsons, a major personal goods chain store, which smells like tropical fruit and feels oily (Line 1), after which the participants share their experiences of using that kind of shampoo across twelve turns. Then, another brand of shampoo is mentioned by Speaker B in Line 14. This shampoo has the same characteristics as the previous one and it is produced by a direct-sales business better known for its personal care products than for shampoo. Speaker B identifies the product by the name of the brand, Nu Skin, and by a gesture: both of her hands rise up and move toward her hair at the time she mentions the brand in speech. This manual movement signifies the current topic, reminding the participants of the subject matter under discussion.

- (8) → 1 C: ..(.9) quchenshi a... ta you chu yi zhong shenme redaishuiguo de xifa[jing]  
 Watsons PRT 3SG PRF produce one kind what tropical fruit ASSC shampoo
- 2 A: [mhm]  
 BC

- 3 B: ..wo [[zhidao]]  
1SG know
- 4 C: [[hao exin o]]  
very disgusting PRT
- 5 A: ...dui a  
right PRT
- 6 C: ..ni zai xiwantou haoxiang... jiushi... ni ba tangjiang... dao zai  
2SG at wash hair:RESULT seem that is 2SG BA syrup pour at  
[tou shang]  
head on
- 7 B: [mhm]... na zhong weidao hen... hen tian [[de ganjue]]  
BC that kind flavor very very sweet ASSC feeling
- 8 C: [[dui a... hen tian]]... ni meiyoubanfa [chongdiao... hen kongbu]  
right PRT very sweet 2SG NEG:way wash away very terrible
- 9 A: [aiya]  
PRT
- 10 C: ..wo na shihou dou hen pa wo shuijiao deshihou mayi hui [[lai yao wo]]  
1SG that time always very afraid 1SG sleep when ant will come bite 1SG
- 11 A: [[mayi a]]  
ant PRT
- 12 B: ..dui a... gaobuhao mayi hui ba ta banzou a  
right PRT perhaps ant will BA 3SG move away PRT
- 13 A: ..[@@]
- 14 B: [@@]...(.7)wo na shihou gang kaishi yong Nu Skin deshihou ye shi  
1SG that time just begin use Nu Skin when also COP  
wash hair: both hands raise from thighs to shoulder level and move toward hair  
(pics. 1–2 in Figure 9)  
zheyang jue de... yinwei ta de [[weidao haoxiang]]... shuiguo  
like this feel because 3SG ASSC flavor seem fruit
- 15 A: [[huhuh]]  
BC
- 16 B: ...ta xifajing hai jia shuiguo... wo hen pa wo xinglai deshihou  
3SG shampoo further add fruit 1SG very afraid 1SG wake up when  
...(.7)mayi paman le wo zhengge toufa ei  
ant crawl over PRF 1SG whole hair PRT
- 17 C: ...hao exin o  
very disgusting PRT

C: Watsons produces a kind of shampoo with a tropical-fruit fragrance.

A: Mhm.

B: I know.

C: It's so disgusting.

A: Right.

C: After you have washed your hair, it is like, that is, you have poured syrup all over your head.

B: Mhm. That kind of fragrance seems very sweet.

C: Right. It's very sweet. You can't wash it away. The shampoo is really terrible.

A: Aiya.

C: I was very afraid at that time that ants would come and bite me while I was sleeping.

A: Ants?

B: Right. Perhaps ants would take her away.

A: (laugh)

B: I also had the same feeling when I began to use Nu Skin at that time, because its fragrance was like fruit.

A: Huhuh.

B: Fruit was added into the shampoo. I was very afraid that ants would be crawling over my hair when I woke up.

C: It's so disgusting.



pic.1



pic. 2

FIGURE 9. *Gestural depiction of washing hair*

The three examples presented in this section demonstrate that gestures are not always associated with lexical constituents in the utterances. Expressing the attitudinal, script-evoked, and topical information in words would have required a re-phrasing of the original words in a different structure. Without lexical affiliates, gestures can also play a role in the collaborative production of coherent talk. In Example (8), gesturing for topic continuity is a way to confirm the common ground with the other participants, in that the use of the name of the brand alone is based on the mutual knowledge that for the purpose of the discussion it can be held to refer to a kind of shampoo. The achievement of coherence is born out in the subsequent interaction between Speaker B and Speaker C, elaborating on how terrible they feel about the shampoo under that brand name (Lines 16 and 17). In short, as the participants convey information exclusively via gestural modality, hand movements can contribute to conversational coherence as a collaborative achievement between the participants, just like speech.

#### 4. *General discussion and conclusion*

The three types of gesture discussed in the previous section form a continuum with respect to the relationship with the linguistic constituents, ranging from association with verbalized lexical affiliates to a lack of grammatical connection with the utterance. In between are the gestures that correspond to



covert constituents. In spite of these differences, they all express a meaning not articulated in speech. It has been shown that participants need to recognize gestural information in order to produce coherent talk. An example in the database shows that it may not be able to accomplish coherence without gesture. In Example (9), M1 talks about his preparation for an examination (Line 1). He is quite sure about the focus of the exam questions, but his problem is that he is not yet well prepared for the difficult questions. M2 congratulates M1 on his realization of the nature of his problem, and he requests M1 to treat him (Line 2). Nevertheless, M2, in his next turn (Line 4), expresses disapproval of his own request, and the utterance comprises the demonstrative *nage* 'that' as predicate. Different from the situation of using the same word in Example (3), no gesture accompanies the word this time, and the absence of gestured information makes M2's idea inaccessible to the addressee. Therefore, M1 in Line 5 has to start negotiation by questioning what *nage* means in Line 4,<sup>3</sup> in order to establish mutual knowledge before producing a sensible coherent response. M2 explains what he meant by *nage* in Line 6 where his meaning was that he disapproves of the usual practice of offering others a treat when someone has realized an achievement. This example illustrates the participant's awareness of the conversational demand for coherence, so 'the interlocutors collaborate towards coherence, negotiating for the common ground of shared topicality, reference, and thematic structure' (Gernsbacher and Givón, 1995: vii). However, without gesture, the conveyed idea can be incomplete and inaccessible to the other participants to make a coherent response.

- (9) 1 M1: ...keshi...youxie jushi...timu de shenqiandu jushi...bijiao youcha...  
 but some that is question ASSC depth that is comparatively have difference  
 dui a.. jiu cai hui cha zai zhe ge difang a.. jiu fangxiang  
 right PRT PRT only will difference at this CL place PRT PRT direction  
 dou hai suan dui fanzheng na fangxiang dou hai suan dui  
 all still count as right anyway that direction all still count as right  
 zhishi keneng shenqian jiu... keneng hai bu gou zheyangzi...zhunbei  
 only may depth then may still NEG enough like this preparation  
 de shendu bu gou... dui ya  
 ASSC depth NEG enough right PRT
- 2 M2: ..hao a... hen hao a... ni dou yijing zhidao wenti chu zai nali... xian  
 good PRT very good PRT 2SG all already know problem out at where first  
 gongxi ni la hon... a ni yao qing chi shenme  
 congratulate 2SG PRT PRT PRT 2SG want treat eat what
- 3 M1: ..qing o.. [chi]  
 treat PRT eat
- 4 M2: [deng] yixia... zhe ju hua jiu keyi na chulai **nage** le  
 wait a while this CL utterance EMP can take out that PRT
- 5 M1: ..**nage**  
 what
- 6 M2: ... jushi...weishenme kaoshang de ren... jiushi dengyu... qing... yao  
 that is why test:RESULT REL person EMP equal REPAIR have to  
 qingke de ren.. shang ci yushuting jiu zai shuo...wo kaoshang  
 treat REL person last time Yu Shuting then PROG say 1SG test:RESULT

shi ziji nuli lai de a... weishenme wo yao qing...  
 COP SELF study hard come PRT PRT why 1SG have to treat  
 nimen zhexie ren  
 2PL these people

M1: But there are some . . . the depth of the question will make a difference. Right. That makes a difference. The direction is counted as correct. Anyway, the direction is counted as right. But the depth may not be enough. The depth of preparation for the test is not enough. Right.

M2: Good. Very good. You already know what the problem is. Let me congratulate you first. What will you treat us?

M1: I'll treat you . . . eat

M2: Wait a second. This utterance 'I'll treat you to eat something' can be taken out for that.

M1: For what?

M2: That is, why are the ones having passed a test the ones who have to treat others? Last time, Yu Shuting said, 'I passed the test because of my own hard work. Why should I have to treat you guys?'

The present study not only supports McNeill's (1992, 2000) claim and Beattie and Shovelton's (2006) experimental finding that the information conveyed by gesture is a crucial part of a communication, it also evidences that '[g]esture provides a resource for organizing co-participation' (Kimbara, 2006: 58), as sequential exchanges between the participants are organized in a way so as to establish common ground and accomplish coherent communication in everyday talk. On the part of the speaker, it is only by using the various types of gesture that a current speaker can make the message to be conveyed in the utterance complete. On the part of the next speaker, the recognition and negotiation with the former speaker of the gestured information is a way to acknowledge or confirm mutual knowledge. The collaboration between the participants contributes to the coherence of the talk in the subsequent interaction.

Some issues, however, still await future research. First, whether the attitudinal, script-evoked, and topical information conveyed by gesture in Section 3.3 would make a difference in achieving coherence is not yet clear. Second, given that speech and gesture are different manifestations of one process in utterance generation (McNeill, 1992; McNeill and Duncan, 2000), whether the three types of gesture discussed in this study suggest that there are different ways of generating and processing gesture-speech units needs further studies.

#### ACKNOWLEDGMENTS

This research was funded by grants from the National Science Council (NSC 94-2411-H-004-031; NSC 95-2411-H-004-008; NSC 96-2411-H-004-004). I would also like to thank the anonymous referees for offering valuable comments and suggestions. All errors of interpretation are my own responsibility.

## APPENDIX

## GESTURE AND SPEECH TRANSCRIPTION CONVENTIONS

*Transcription of speech*

[ ]	speech overlap
... (N)	long pause
...	medium pause
..	short pause
(0)	latching
@	laughter
TSK	a click of the tongue
< L2 L2 >	code-switch to English

*Transcription of gesture*

For the representation of gesture in examples, the underlined part of the utterance is the stroke phase (and the hold phase, if there is any); the lexical affiliate(s), if there is/are any, is/are in boldface. The description of gesture is given under the line of associated speech. In each gestural description, the word(s) before the colon represent(s) the referent a gesture refers to; the description of the manual movement comes after the colon.

## ABBREVIATIONS OF LINGUISTIC TERMS

1PL	first person plural
1SG	first person singular
2PL	second person plural
2SG	second person singular
3PL	third person plural
3SG	third person singular
ASSC	associative morpheme
BA	the morpheme BA
BC	backchannel
CL	classifier
COP	copula verb
EMP	emphatic adverbial
NEG	negative morpheme
PF	pause filler
PRF	perfective aspect
PROG	progressive aspect
PRT	discourse particle
QST	question particle
REPAIR	repair phoneme(s)
SELF	reflexive morpheme
RESULT	resultative morpheme

## NOTES

1. The data from the NCCU Corpus of Spoken Mandarin can be accessed online at <http://140.119.172.200>
2. The frequency of movement is not the same: M2 moved his hands up and down four times, but M1 did it three times.

3. In Line 4 *nage* 'that' is a demonstrative word written as 那個; *nage* 'what' in Line 5 is a question word written as 哪個.

## REFERENCES

- Anderson, A.H. (1995) 'Negotiating Coherence in Dialogue', in M.A. Gernsbacher and T. Givón (eds) *Coherence in Spontaneous Text*, pp. 1–40. Amsterdam/Philadelphia, PA: John Benjamins.
- Beattie, G. and Shovelton, H. (2006) 'When Size Really Matters', *Gesture* 6(2): 63–84.
- Bublitz, W., Lenk, U. and Ventola, E. (eds) (1999) *Coherence in Spoken and Written Discourse: How to Create It and How to Describe It*. Amsterdam/Philadelphia, PA: John Benjamins.
- Coates, J. (1995) 'The Negotiation of Coherence in Face-to-Face Interaction: Some Examples from the Extreme Bounds', in M.A. Gernsbacher and T. Givón (eds) *Coherence in Spontaneous Text*, pp. 41–58. Amsterdam/Philadelphia, PA: John Benjamins.
- Craig, R.T. and Tracy, K. (eds) (1983) *Conversational Coherence: Form, Structure, and Strategy*. Beverly Hills, CA: Sage.
- De Fornel, M. (1992) 'The Return Gesture', in P. Auer and A. di Luzio (eds) *The Contextualization of Languages*, pp. 159–93. Amsterdam/Philadelphia, PA: John Benjamins.
- Geluykens, R. (1999) 'It Takes Two to Cohere: The Collaborative Dimension of Topical Coherence in Conversation', in W. Bublitz, U. Lenk and E. Ventola (eds) *Coherence in Spoken and Written Discourse: How to Create It and How to Describe It*, pp. 35–53. Amsterdam/Philadelphia, PA: John Benjamins.
- Gernsbacher, M.A. and Givón, T. (1995) 'Introduction: Coherence as a Mental Entity', in M.A. Gernsbacher and T. Givón (eds) *Coherence in Spontaneous Text*, pp. vii–x. Amsterdam/Philadelphia, PA: John Benjamins.
- Givón, T. (1995) 'Coherence in Text vs. Coherence in Mind', in M.A. Gernsbacher and T. Givón (eds) *Coherence in Spontaneous Text*, pp. 59–115. Amsterdam/Philadelphia, PA: John Benjamins.
- Goodwin, C. (1995) 'The Negotiation of Coherence within Conversation', in M.A. Gernsbacher and T. Givón (eds) *Coherence in Spontaneous Text*, pp. 117–37. Amsterdam/Philadelphia, PA: John Benjamins.
- Gumperz, J.J. (1982) *Discourse Strategies*. Cambridge: Cambridge University Press.
- Gumperz, J.J., Kaltmann, H. and O'Connor, M.C. (1984) 'Cohesion in Spoken and Written Discourse: Ethnic Style and the Transition to Literacy', in D. Tannen (ed.) *Coherence in Spoken and Written Discourse*, pp. 3–19. Norwood, NJ: Ablex.
- Halliday, M.A.K. (1978) *Language as a Social Semiotic*. London: Arnold.
- Halliday, M.A.K. and Hasan, R. (1976) *Cohesion in English*. London: Longman.
- Kendon, A. (2004) *Gesture: Visible Action as Utterance*. Cambridge: Cambridge University Press.
- Kimbara, I. (2006) 'On Gestural Mimicry', *Gesture* 6(2): 39–61.
- Labov, W. and Fanshel, D. (1977) *Therapeutic Discourse*. New York: Academic Press.
- Linell, P. and Korolija, N. (1997) 'Coherence in Multi-Party Conversation: Episodes and Contexts in Interaction', in T. Givón (ed.) *Conversation: Cognitive, Communicative and Social Perspectives*, pp. 167–205. Amsterdam/Philadelphia, PA: John Benjamins.
- McNeill, D. (1992) *Hand and Mind: What Gestures Reveal about Thought*. Chicago, IL: University of Chicago Press.
- McNeill, D. (ed.) (2000) *Language and Gesture*. Cambridge: Cambridge University Press.
- McNeill, D. and Duncan S.D. (2000) 'Growth Points in Thinking-for-Speaking', in D. McNeill (ed.) *Language and Gesture*, pp. 141–61. Cambridge: Cambridge University Press.

- McNeill, D. and Levy, E.T. (1993) 'Cohesion and Gesture', *Discourse Processes* 16: 363–86.
- Schank, R.C. and Abelson, R.P. (1977) *Scripts, Plans, Goals, and Understanding: An Inquiry into Human Knowledge Structures*. Hillsdale, NJ: Erlbaum.
- Schegloff, E.A. (1984) 'On Some Gestures' Relation to Talk', in J.M. Atkinson and J. Heritage (eds) *Structures of Social Action: Studies in Conversation Analysis*, pp. 266–96. Cambridge: Cambridge University Press.
- Schegloff, E.A. (1990) 'On the Organization of Sequences as a Source of "Coherence" in Talk-in-Interaction', in B. Dorval (ed.) *Conversational Organization and its Development*, pp. 51–77. Norwood, NJ: Ablex.
- Schiffrin, D. (1980) 'Meta-Talk: Organizational and Evaluative Brackets in Discourse', *Sociological Inquiry* 50(3/4): 199–236.
- Schiffrin, D. (1982) 'Cohesion in Everyday Discourse: The Role of Paraphrase'. Texas Working Papers in Sociolinguistics 97. Austin, Texas.
- Schiffrin, D. (1985) 'Conversational Coherence: The Role of Well', *Language* 61: 640–67.
- Tannen, D. (ed.) (1984) *Coherence in Spoken and Written Discourse*. Norwood, NJ: Ablex.
- Van Dijk, T.A. (1972) *Some Aspects of Text Grammars*. The Hague: Mouton.
- Van Dijk, T.A. (1977) *Text and Context: Explorations in the Semantics and Pragmatics of Discourse*. London: Longman.



KAWAI CHUI is Professor of Linguistics at National Chengchi University, Taipei. She has been working to build a corpus of spoken Chinese with gestural analysis. Her research interests include gesture and speech communication, cognitive processing of language and gesture, and the discourse basis of grammar.