

Problems in Identifying Participant Structures in Medical Triadic Conversation*

TSAI Mei-hui

National Cheng Kung University

Issues related to the ‘participant structure’ (Rosenfeld 1996) in triadic medical encounters (i.e. doctor, patient, companion) have become the focus of much research in the study of discourse and medicine. One of the goals of researchers is to examine how the presence of a third person affects the doctor’s distribution of attention. By examining some elements of discourse, such as pronouns and vocatives, they can identify the addressee of the doctor’s question, and measure how the doctor’s attention on the patient is affected by the presence of a third person. However, when applying Rosenfeld’s framework of identifying the participant structure to our Taiwanese geriatric triads (which were collected in a teaching hospital in Southern Taiwan), we found that most of the linguistics indicators set up in her framework are unavailable in pro-drop languages such as Mandarin and Southern Min. Therefore, it is the goal of this paper to present those problems which resulted from applying pre-existing frameworks identifying the participant structure to Chinese discourse. Besides the difference in syntactical structure, arguments grounded in inter-actional and professional aspects will be presented, to show that the attempt to identify the doctor’s addressee in a triadic encounter can be as difficult as identifying the type of speech act achieved in an utterance. As a result, the addressee of the doctor’s question remains ambiguous. In light of these problems, other possible ways to examine the companion’s participation will be suggested in the conclusion section.

Key words: discourse analysis, participant structure, medical discourse, triadic interaction

1. Introduction

As more and more sociolinguists and discourse analysts devote their research to how languages are used in the workplace (such as the discourse by legal, media or medical

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professionals), medical discourse (such as doctor-patient communication) has received a great deal of attention from scholars (such as Frankel 1979, West 1983, Fisher and Groce, 1990). While most research on medical communication focuses on the dyadic conversational interaction between doctor and patient, medical triads (i.e. the interaction between doctor, patient, and the patient's companion) begin to receive attention from scholars as well (e.g. Tannen and Wallat 1982, Aronsson and Rundstrom 1988, Baker 1996). One of the common goals of the research of these scholars is to examine how the presence of a third person (i.e. the patient's companion) affects the doctor-patient communication. Some researchers achieved this goal by identifying the addressee of the doctor's question. I.e. is the doctor's question directed to the patient or the companion? The idea of 'addressee' in triadic conversation can be efficiently reformulated by Rosenfeld's term 'participant structures'¹ which she defines as 'the constellation of participant statuses of all those present during the interaction' (1996:64). For example, the participant structure in which the doctor directs a question to the patient is a 'doctor-patient dyad', and the one in which the doctor directs a question to both the patient and the companion is a 'doctor-patient-companion triad'. Rosenfeld's term 'participant structure' is thus used in our paper.

By identifying the participant structure of the question-response pairs, i.e. the addressee of the doctor's question, researchers show how the doctor distributes his or her attention during the interaction, and it indirectly reveals how the presence of the companion affects the doctor-patient communication. The linguistic and non-linguistic elements that the researchers use in identifying the participant structures include vocatives, personal pronouns, sequential discourse structure, and discourse context.

The research on the effect of the companion's presence on doctor-patient communication is especially important in geriatric encounters, since most elderly patients (i.e. patients who are aged 65 or above) are with a companion in their visit to doctors. For example, Adelman et al. (1991:130) notices that, without substantial data for estimation, 60% of the elderly patients are accompanied by a third person. In Tsao and Lu's study of 221 cases of geriatric encounters observed in a teaching hospital in southern Taiwan (1999), the researchers find that 73.1% of the elderly patients are accompanied by one (or more than one) companion, such as the patient's spouse or an adult child.

Motivated by a goal similar to that of scholars in literature, the original plan of our research was to explore how the presence of the companion affects the doctor-patient interaction in the Taiwanese context. The discourse elements to be examined are the

¹ Rosenfeld's term 'participant structure' is adopted from Philips (1972:377). Philips uses the term to refer to different ways of how a teacher arranges the students in the classroom. For example, the teacher may interact with a specific student by answering the student's question, or with a group of students by giving a command

question-response sequence, and the two research questions are as follows:

- A) How many questions from the doctor are directed to the patient, and how many are directed to the companion?
- B) How are answers or information provided by the patient or by the companion?

With these two goals, we expected to see how the presence of the companion affects the doctor's attention to the patient and the patient's priority in providing first-hand information to the doctor.

The data for analysis are fifteen videotaped triadic geriatric encounters (i.e. doctor, elderly patient, and the patient's adult child) collected in a teaching hospital in southern Taiwan. However, while applying the pre-existing frameworks in the literature to our videotaped Taiwanese geriatric data, many problems in methodology arose when we attempted to identify the participant structures of the question-response pairs. As a result, in many cases, the addressee of the doctor's questions was left ambiguous. Thus, the two research questions A and B could not be answered effectively by the application of pre-existing frameworks available in the literature.

The methodological problems and practical issues that we encountered in the application are important considerations for researchers when examining the effect of companions on doctor-patient communication. In this paper, we will demonstrate the problems we encountered when applying the pre-existing framework to analyze the participant structure in our Taiwanese medical discourse.

In section 2, we review three frameworks: The first two are: Baker's research on geriatric triads (1996), and Aronsson and Rundstrom's work on pediatric triads (1988). Both of their works present interesting findings, but the process of how they came to those findings are not clearly stated, and thus not applicable to other data. The third one, Rosenfeld's research on marital therapy talks (1996), provides a more comprehensive system of coding the obtained data. The indicators she uses for identifying the participant structure include vocatives, third and second person participant deictics, sequential discourse structure, and discourse context. In section 3, these indicators and the problems of their applicability to our data will be discussed.

Section 4 presents three more indicators observed in our videotaped Taiwanese data. They are: code-switching (between Southern Min and Mandarin), relationship deictics, and eye contact. Even with these many indicators however, the task of identifying the participant structure in triads remains a touchy one. Based on problems in methodology, and concerns by the medical profession we will argue that the identification of the participant structure in

geriatric triads may not be worth being the major concern of the researcher (section 5). At the end of section 5, other discourse measurements and research directions to examine the effect of companion's participation will be suggested.

2. Baker's and Aronsson and Rundstrom's research

Baker's study (1996) compares the information-exchange patterns of 36 triadic geriatric encounters (i.e. the elderly patient is with a companion) which were observed at the medical center of an urban university in the southern United States. These 36 encounters were audio-taped for analysis. Though Baker's study is not grounded in linguistics, it deals with issues similar to the analysis of the effect of a companion on the geriatric triads. She found that the ratio of the physician's questions directed to the elderly patient and to the companion varies during the encounter, as shown in Table 1.

Table 1. Eliciting Patterns of Physicians (from Baker 1996:36)

	Mean	S. D.	Median	Maximum
Total encounter (N=36)				
Directed to patient	.70	.27	.75	1.00
Directed to third	.24	.26	.16	.98
Ambiguous	.07	.07	.04	.30
Pre-physical (N=34)				
Directed to patient	.70	.28	.74	1.00
Directed to third	.23	.26	.17	1.00
Ambiguous	.07	.09	.04	.35
Physical (N=28)				
Directed to patient	.73	.33	.87	1.00
Directed to third	.20	.29	.09	1.00
Ambiguous	.04	.06	.00	.19

Post-physical (N=33)				
Directed to patient	.49	.38	.50	1.00
Directed to third	.37	.38	.24	1.00
Ambiguous	.12	.18	.05	.75

For the first two parts of the encounters, Baker notes that ‘approximately one question is directed to the companion for every three directed to the patient’ (p.34), as shown by the mean ratio of 0.70 (to patient) vs. 0.23 (to third) in the pre-physical portion and 0.73 (to patient) vs. 0.20 (to third) in the physical portion. However, in the post-physical portion, the mean ratio of the physician’s questions directed to the companion climbs to 0.37 while the ratio of those directed to the patient decreases to 0.49. Baker also notices ambiguous cases where the addressees of the physician’s questions cannot be identified as indicated by the mean ratio of 0.7, 0.4, and 0.12 of the ambiguous cases.

Our interpretation of Baker’s findings is that the elderly patient’s companion is more inclined to be addressed by the physician in the portion following the physical exam than in the pre-physical exam and physical exam portions. Thus, the amount of the companion’s participation is related to the phase in the geriatric encounter. This implication is interesting in itself. However, Baker’s methods of identifying the addressees of the physician’s questions are not clearly presented, and no related conversational data are presented for illustration.² Thus, her analysis can not be duplicated in our data.

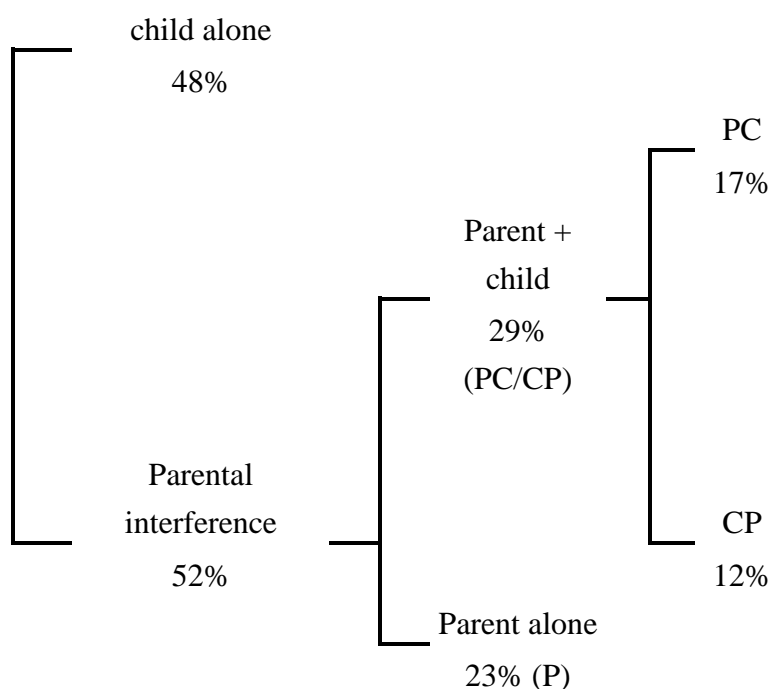
The linguistic research by Aronsson and Rundstrom in 1988 is devoted to 32 audio taped triadic pediatric interactions between pediatricians, their child patients, and one or both parents of the child patients. In their study, they first identify the addressee of the pediatrician’s utterances, i.e. how many of them are directed to the child patient and how many to the child’s parent(s). Those directed to the child are called ‘child-allocated turn (CAT)’ (p.164). Their first finding shows that most of the doctors’ talk is directed to the parents, not to the children, and that ‘child-allocated turns thus constitute but a minority of doctors’ talk to parents and child patients’ (p.166). The researchers further examined the response patterns of the child-allocated turns. Overall, they found that only 48% of the

² To our knowledge, Baker’s framework is based on the ‘Verbal Exchange Initiation System’ developed in her previous work. Yet it is not available in publication. The only description that we can find, which is related to the identification of the doctor’s addressee, is the sentence from the abstract: ‘A measure, called ‘physician orientation,’ quantified physician attention to patients and to companion.’

child-allocated turns received responses from the child alone, and the other 52% were responded to either by the parent(s) alone or with parental intervention, as shown in Figure 1.

Based on the amount of the parents' intervention involved in the response patterns, the 32 parents are grouped into two categories: high-control parents (H-group) and low-control parents (L-group) (p.166). Also, some comparisons of the discourse behavior between the two groups of parents are presented. For example, H-group parents allow their child to answer only one in three questions (i.e. 33%) posed by the doctor to the child patient, whereas the L-group allows a greater amount of 63%. Aronsson and Rundstrom's findings are important because they show how the active or dominant companion will affect the discourse structure of the doctor-patient interaction.

Figure 1. Percentage of responses by child and/or parent
(Adapted from Aronsson and Rundstrom 1988:166).



Though the researchers provide only one paragraph to describe how the addressee is identified, their analysis is clearly based on the pediatrician's use of the first-name of the child and the second person singular form (Swedish 'du'). However, it remains unclear if all the addressees of the pediatrician's utterances can be clearly identified by these two criteria.

The work by Tannen and Wallat (1982) deals with a single case study of a pediatric interaction. Although their discussion focuses on multiple tasks on the part of the pediatrician,

they observe that the pediatrician uses different linguistic registers when addressing different audiences. For example, ‘when talking to the child, the pediatrician uses the classic features of ‘motherese’ (Newport, Gleitman, and Gleitman 1977): high pitch, elongated vowel sounds, sing-song intonation, and teasing’ (Tannen and Wallat 1982:45), as shown in Excerpt 1. When talking to the child’s mother, the pediatrician uses a register which is similar to that heard in ‘everyday conversation’, as shown in Excerpt 2.

Excerpt 1. (From Tannen and Wallat 1982:45)

→1. Doctor: Let me look in your ear. Okay? Do you have a monkey in your ear?

2. Patient: {laughing} No:::::

→3. Doctor: No:::? ... Let's see... I .. see a birdie

4. Patient: [{laughing} No::

→5. Doctor: [{smiling}No.

Excerpt 2. (From Tannen and Wallat 1982:46)

→ Doctor: ... What we’d want to look for is to see how she... moves her palate....which may be some of the difficulty with breathing, that we’re talking about

In this case, the doctor’s choice of different registers serves as a good indicator to identify his/her addressee in the pediatrician triad, i.e. the child patient or the child’s parent. The use of ‘motherese’ or ‘baby talk’ by the medical professional when talking to patients is also documented in geriatric cases. Caporael (1981), for example, notices that nurses tend to use baby talk to the older residents in health care institution, such as ‘Open your mouth! GOOD!’ While such a use of baby talk is deemed by the elderly with a poor health status as a reassurance of continued care and approval, it is perceived by the capable ones as condescending.

However, baby talk as a conversational register in talking to the elderly patient seldom occurs in our data for the following reasons: The use of exaggerated intonation or simplified speech seems to be directed at addressees who are lacking cognitive or physical autonomy to some degree, such as babies, seriously ill patients, beginners in the learning of a second language (cf. ‘foreign talk’ in Ferguson 1981 and Freed 1981). The elderly patients we observed were first-time-visit patients in the out-patient department of family medicine. Their

health status was relatively healthier than hospitalized patients or institutionalized elderly. Most of them were able to visit the doctor and carry on a conversation on their own. The occasion that we noticed the doctor using exaggerated intonation and simplified languages was in the case where the elderly patients suffered some hearing problem. Also, the use of baby talk to autonomous adults might cause a negative reaction on the addressee's part, as indicated in Caporael's study (1981), and would seem to be inappropriate in the first-visit case where the doctor and the patient meet for the first time. Therefore, baby talk or the use of special register would not be a helpful indicator in the identification of participant structure in our geriatric data.

Both research projects, the one by Baker and the one by Aronsson and Rundstrom deal with the issue of how the doctor distributes his or her attention to the patient and the companion. However, they provided neither a detailed description nor conversational data of how they coded the addressee of the doctor's utterances. The researchers presented their findings without showing what procedures they followed in order to arrive at these findings. Therefore, it would be difficult for us to duplicate their research and to examine the validity of their findings.

3. Rosenfeld's framework

With a similar goal but with a different focus from the above two researches, Rosenfeld's research (1996) examines the participant structure in triadic marital therapy talk. For example, is a current utterance of the therapist directed to the husband (thus a therapist-husband dyad), to the wife (thus a therapist-wife dyad), or to both (thus a therapist-couple triad)? Her database consists of six audio taped marital therapy sessions between a couple and their therapist. Although the nature of a marital therapy session is different from medical encounters, the framework that Rosenfeld has established is a solid and thorough system of indicators for identifying the participant structure in triadic encounters. We will discuss the four indicators in her framework with examples from our data.

3.1 Vocatives

Vocatives refer to the name of the addressee. This indicator is also adopted by Aronsson and Rundstrom. For example, the use of the patient's name by the doctor '王先生

/ong-sian-sinn'³ 'Mr. Ong' clearly marks Mr. Ong as the addressee.

Dr. Tiunn: **{Mr. Ong and his daughter came into the room.}**

來, 王先生 honn? 啊汝是按啲艱苦?

Lai, Ong-sian-sinn honn? a li si an-na kan-khoo?
 come Mr. Ong, QUESTION PARTICLE⁴ you be how sick

OK, Mr. Ong, right? So what's your problem?

→The patient is the addressee → doctor-patient dyad

Vocatives provide the clearest means of identifying the addressee. However, this powerful indicator is not available in our data. In all the fifteen cases that we have collected, the only instances in which doctors address the patients with their family name (such as Mr. Ong) is to greet them as the patients step into the room. It is unthinkable in Taiwan for a doctor to address the patient using his or her first name, e.g. '永源' 'Ing-guan', during a medical encounter, a practice which is more commonly observed in Rosenfeld's data. For example, in the following excerpt, the therapist's use of 'Jack' to refer to the husband in line 1 marks the utterance as a 'therapist-wife' dyad, and the use of the vocative 'Jack' to address the husband in line 2 marks the utterance as a 'therapist-husband' dyad.

Excerpt 3. (From Rosenfeld 1996:86.)

→1. Therapist: I think what Jack is

→2. ..
 Jack what you're saying is that you wanted to know what..you'd like to understand why,

There are two possible reasons to account for the fact that the use of the addressee's first name as a vocative observed in Rosenfeld's English data, and Aronsson and Rundstrom's Swedish data, does not appear at all in our Taiwanese data. First, in Taiwanese culture, the use of the first name is mainly restricted for use by an older family member to a younger one, such as a parent to a child, or in intimate symmetric relationships, such as friends to friends or between couples. Second, the nature of marital therapy in the western context is to establish a

³ In this paper, the Southern Min utterances are presented by using TLPA system (Taiwan Language Phonetic Alphabet), issued by the Ministry of Education, Taiwan, in 1998 and the Mandarin data are presented in the Pinyin system. Since Mandarin is not the major language used in the fifteen medical encounters, its occurrence is marked by underlining, whereas Southern Min is not underlined.

⁴ Sentential particle

rapport and a symmetric relationship between the therapist and the clients. This relationship can be established by the therapist using the first name of the client as a vocative. However, in the context of the Taiwanese medical encounter, especially among the elderly generation, the doctor-patient relationship is more an asymmetrical and a hierarchical one. These two contexts prevent the doctor from addressing the patient or the companion by their first name.

3.2 Third person participant deictics.

Third person participant deictics refers to pronouns, such as ‘伊/i’ ‘he/she’ in Southern Min and ‘他/ta’ ‘he/she’ in Mandarin. By referring to one of the participants as ‘he/she’, that referent is excluded as addressee, and the other party is marked as the addressee (p.90). As shown in the following, the doctor refers to the patient as ‘伊/i’ ‘she’. This reference indicates that the other party, i.e. the patient’s daughter-in-law, is the addressee and thus it becomes a doctor-companion dyad.

Dr. Kang: 伊攏無咧做運動 honn?

<i>I</i>	<i>long</i>	<i>bo</i>	<i>leh</i>	<i>co</i>	<i>un-tong</i>	<i>honn?</i>
she	EMPHASIS	not	ASPECT	take	exercise	QUESTION

She does not get any exercise? right?

→The companion is the addressee → doctor-companion dyad

3.3 Second person participant deictics.

Second person participant deictics refers to second person pronouns, such as ‘汝/li’ ‘you (singular)’ in Southern Min, and ‘你/ni’ ‘you (singular)’ in Mandarin. It should be noticed that these two pronouns are the singular form. Therefore, by referring to one participant with the singular ‘you’, the pronoun exclusively marks that referent as the addressee and leaves the other as the un-addressed one, as shown below.

The doctor addresses the patient with the pronoun ‘汝/li’ ‘you (singular)’ in order to gather further information regarding the patient’s heart problem. This example is thus a doctor-patient dyad.

Dr. Niung: 啊汝講...卡早有心臟病喔?

A li kong... khah-ca u sim-cong-penn oo?
PARTICLE you (singular) say earlier have heart disease QUESTION

And did you say... you suffered heart disease earlier?

→The patient is the addressee →doctor-patient dyad

The practice of using a second person singular pronoun, such as the Swedish 'du,' as an indicator for identifying the participant structure is also adopted by Aronsson and Rundstrom. The third person pronoun and the singular second person pronoun in both Southern Min and Mandarin are powerful indicators as well. However, as both languages are pro-drop languages, subjects can always be deleted as long as they are understood in the context. In the following example, no subject is observed.

Dr. Niung: 這黑龜喘有外久啊?

Ce he-ku-chuan, u gua ku a?
this asthma have how long ASP

- 1) This asthma, how long have (you) suffered from (it)?
- 2) How long has the asthma lasted?

→The patient or the companion is the addressee?

In our counting, there are a total of 833 question-response pairs that start with a question posed by the doctor. Out of the 833 pairs, 18 of them (2.2%) include a third person pronoun, and 254 of them (30.5%) include a singular second person pronoun. This leaves the addressees of the remaining 67.3% of the doctor's questions ambiguous. Thus, the use of personal deictics to indicate the addressee does not work as efficiently in our Taiwanese data as it does in Rosenfeld's English data or Aronsson and Rundstrom's Swedish data.

3.4 Sequential discourse structure

Sequential discourse structure refers to the preceding and occurring types of discourse acts achieved in the utterance (p.102). In line 1 of the following hypothetical example, the addressee is ambiguous. However, given the fact that the daughter answers the question in line 2, line 1 is therefore judged as a question directed to the daughter of the patient. In this case, the discourse structure of the question-response sequence clarifies the doctor's

addressee of line 1, and line 1 is judged as a doctor-companion dyad.

1. Doctor: 這黑龜喘有外久啊?

Ce he-ku-chuan, u gua ku a?
 this asthma have how long ASPECT

- 1) This asthma, how long have (you) suffered from (it)?
 2) How long has the asthma lasted?

→The patient or the companion is the addressee?

2. Daughter: 卜三十冬啊

Beh sann-cap tang a
 almost 30 years ASPECT

About 30 years

However, this analysis does not account for the other possibility, namely that the doctor addresses the question to the patient and the dominant daughter nonetheless responds before the patient does. More ambiguities will result as long as both the patient and the companion are verbally active in the interaction.

3. Doctor: 三十冬啊, 按啲足久啊啲?

Sann-cap tang a? an-ne ciok ku a ne?
 30 years ASPECT that very long ASPECT PARTICLE

30 years? that's kind of long.

→The patient or the companion is the addressee?

In line 3, it is unclear to whom the doctor directs his or her comment. If we take an element from the context discourse, such as topic coherence, as an indicator, we then can interpret the doctor's comment as being directed to the daughter's reply of line 2. However, this interpretation runs into trouble when the patient speaks in line 4.

4. Patient: Henn 啊, 足久啊, 啊這幾日仔愈來愈嚴重
Henn a, ciok ku a,
 yeah PARTICLE very long ASPECT,

a cit-kui-jit-a lu-lai-lu giam-tiong,
 PARTICLE these days more serious

 Yeah, very long, (it's) getting worse these days.

In line 4, the patient shows his affirmative response to the doctor's comment of line 3. In accordance with the discourse structure as an indicator, such as statement-agreement, the addressee of line 3 will then be interpreted as the patient. This analysis contradicts the previous one.

4. Three more indicators from our data

Our data provides three more indicators: eye contact, code-switching, and relationship deictics for identifying the participant structure in medical triads.

4.1 Code-switching

Given the bilingual background of southern Taiwan, most doctors (between the ages of 25–50) and companions (between the ages of 25–50) are bilingual in Southern Min, the local dialect, and Mandarin, the official language. Eleven of the elderly patients are judged as being monolingual in Southern Min, based on the fact that they rarely used any Mandarin during the entire encounter. Therefore, whenever the doctor code-switches from Southern Min to Mandarin, clearly the companion is the addressee.

In Excerpt 4, the doctor is eliciting information regarding the patient's family history. He begins with the question regarding the patient's living arrangement (line 1). The doctor's question is asked in Southern Min. However, when the doctor asks about the number of the patient's offspring, he code-switches to Mandarin '幾個兄弟姊妹/*ji-ge xiong-di-jie-mei*?' 'How many brothers and sisters?' Given the fact that the patient rarely speaks Mandarin during the entire encounter, the first part of the doctor's question in line 6 is then judged as being directed to the daughter and is therefore judged a doctor-companion dyad. The daughter provides the answer to the doctor's question by giving the information that she has six

brothers and sisters (line 7). The doctor further clarifies the gender of the patient's six children in line 8. Again, the doctor's question is uttered in Mandarin. Line 8 is seen as a doctor-companion dyad.

**Excerpt 4. (Patient: Mr. Tan, 76M; main language: Southern Min;
underlined parts: Mandarin)**

1. Dr. Niung: 啊汝既嘛共誰人住作夥?
A li cit-ma kah siang tua co-hue?
 PARTICLE you now with whom live together
2. Mr. Tan: [共音
 [*Kah in*
 with them
3. Daughter: [共...共阮,迄落::我是他女兒
 [*Kah... kah guan, hit-lo::: wo shi ta nü-er*
 with... with us, that:: I be his daughter
4. Dr. Niung: 呼
Hoo
 oh
5. Daughter: 哼
Hng
 yeah
- 6. Dr. Niung: 彼落..幾個兄弟姊妹?歸欵囡仔?
Hit-lo..ji-ge xiong-di-jie-mei kui-e gin-a
 that how many brother and sister how many children
7. Daughter: 阮..六欵
Gun..lak e
 we six CLASSIFIER
- 8. Dr. Niung: 兄弟姊妹六個, 男生女生?::六個?
Xiong-di-jie-mei liu ge, nan-sheng nü-sheng .. liu ge
 brothers and sisters six CLASSIFIER male female:: six CLASSIFIER

9. Daughter: 嗯::有::誒..
Ng:: u:: e..
 yeah have enn
- [五個女的
[wu ge ni-de, yi ge nan-de]
 five CLASSIFIER female, one CLASSIFIER male
10. Mr. Tan: [/五欸??/
 [/Goo e ??/
 five CLASSIFIER

Translation

1. Dr. Niung: And whom do you live with now?
2. Mr. Tan: [With them
3. Daughter: [With...with us, and::: I am his daughter
4. Dr. Niung: Oh, I see
5. Daughter: Yeah
- 6. Dr. Niung: That..how many brothers and sisters? how many kids?
7. Daughter: We.. six
- 8. Dr. Niung: Six brothers and sisters, male and female::: six?
9. Daughter: Yeah::, some::: enn::: [five female, one male
10. Mr. Tan: [five??/

Although code-switching works as a powerful indicator, its power is downgraded because of its low frequency of occurrence in the information-gathering stage.⁵ Among the 833 question-response sequences which begin with the doctor asking information-eliciting

⁵ In our data, the doctors code-switch more often in the stage where they give the patient and the companion information regarding the diagnosis and treatment plan.

questions, only 15 of them (1.8%) are uttered in Mandarin. Also, doctors switch between Mandarin and Southern Min, even within a single utterance. For example, the first part of the doctor's utterance in line 6 is spoken in Mandarin '幾個兄弟姊妹/*ji-ge xiong-di-jie-mei*?' 'how many brothers and sisters?' whereas in the second part, he switches to Southern Min '歸欸囡仔/*kui-e gin-a*?' 'how many kids?'

4.2 Relationship deictics

The idea of relationship deictics is similar to Levinson's 'social deixis'—'aspects of language structure which encode the social identities of participants, or the social relationship between them, or between one of them and persons and entities referred to' (1983:89). In this research, relationship deictics refers to the lexical items which describe the relationship among the patient's family members. For example, in line 6 of Excerpt 4, there are two relationship deictics observed in the doctor's question in which he elicits information regarding the number of the patient's offspring. The first one which is uttered in Mandarin '兄弟姊妹/*xiong-di-jie-mei*' 'brothers and sisters' marks the companion (i.e. the patient's daughter) as the addressee. The second one which is uttered in Southern Min '囡仔/*gin-a*' 'children' marks the patient as the addressee. Again, the doctor's choice of relationship deictics marks either the companion or the patient as his addressee.

Since all the fifteen companions in this study are adult children related to the elderly patient, the companions are all part of the patient's family (the patient's son, daughter, son-in-law, or daughter-in-law). The doctor's reference to any of the patient's family members can be formulated in such a way as to mark either the patient or the companion as the addressee. For example, there are a total of 7 instances in which the doctors mark the patient as the addressee when eliciting information regarding the health status of the patient's spouse. Dr. Tiunn, Dr. Lau as well as 5 other doctors have the adult child as the addressee:

Dr. Tiunn (to Mrs. Yiu): 啊恁頭家咧?
A lin thau-ke le? (PRTICLE/you/husband/QUESTION)
 And (how's the health of) your husband?

Dr. Lau (to Mrs. Su's son): 啊恁爸爸咧?
A lin pa-pa le? (PRTICLE/you/father/QUESTION)
 And (how's the health of) your father?

There are a total of 10 instances in which the doctors (such as Dr. Kang) mark the patient as their addressee when eliciting the number of their offspring and 3 instances in which the doctors (such as Dr. Niung) mark the adult child as the addressee.

- Dr. Kang (to Mrs. Tenn): 啊囡仔幾欸啊?
A gin-a kui-e a? (PRTICLE/kids/how old/QUESTION)
 And how many children [do you have]?
- Dr. Niung (to Mr. Khoh's son): 汝有幾欸兄弟姊妹啊?
Li u kui-e hiann-ti-ci-mue a?
 (you/have/how many/brothers and sisters/QUESTION)
 How many brothers and sisters do you have?

Other relationship terms which mark the companion as the addressee observed in the doctor's utterances are presented in the left column of Table 2. Their alternative expressions, which would mark the patient as the addressee, are presented in the right hand column.

Table 2. Relationship deictics (Underlined part: Mandarin).

The companion as the addressee	The patient as the addressee
大姊是抱欸啦? <u><i>Da-jie si pho-e la?</i></u> The <u>oldest sister</u> is adopted? (' <u>大姊</u> ' refers to the patient's daughter.)	大漢查某子是抱欸啦? <u><i>Tua-han ca-boo-kiann si pho-e la?</i></u> The <u>oldest daughter</u> is adopted? (' <u>大漢查某子</u> ' refers to the patient's daughter.)
哥哥幾個小孩? <u><i>Ge-ge ji-ge xiao-hai?</i></u> How many kids does (your) <u>brother</u> have? (' <u>哥哥</u> ' refers to the patient's son.)	後生歸欸囡仔? <u><i>Hau-senn kui-e gin-a?</i></u> How many kids does (your) <u>son</u> have? (' <u>後生</u> ' refers to the patient's son.)
大伯敢娶啊? <u><i>Da-bo kam chua a?</i></u> Is the <u>elder-brother-in-law</u> married? (' <u>大伯</u> ' refers to the patient's son.)	大漢後生敢娶啊? <u><i>Tua-han hau-senn kam chua a?</i></u> Is the <u>elder son</u> married? (' <u>大漢後生</u> ' refers to the patient's son.)
共恁公公兩欸住作夥? <u><i>Kah lin gong-gong nng-e tua co-hue?</i></u> (The patient) lives with your <u>father-in-law</u> ? (' <u>公公</u> ' refers to the patient's husband.)	共恁頭仔兩欸住作伙? <u><i>Kah lin thau-e nng-e tua co-hue?</i></u> (You) live with your <u>husband</u> ? (' <u>頭仔</u> ' refers to the patient's husband.)

Relationship deictics is also a powerful indicator in identifying the participant structure. However, its occurrence is restricted to the activities in which the doctor gathers information regarding the patient's family history. The goals of these activities, which usually take up a small part of the whole interaction, are for doctors to learn about possible hereditary factors in the patient's family, the existing family support and resources of the elderly patients.

4.3 Eye contact

The use of videotaped data differentiates our data from the audio taped data of Baker, Aronsson and Rundstrom, and Rosenfeld. For a discourse analysts non-verbal data provides for a more thorough analysis of the interpretation of verbal data. Heath's research (1986), for example, which presents a detailed analysis of the moment-by-moment co-ordination of body movement and speech between doctor and patient, describes how the participant's body language, such as head movement and the tilt of the shoulders, signals their attention to speak or to assign the next speaker. For example, eye contact or gaze from the current speaker is usually a strategy to signal the potential recipient and to encourage the recipient's verbal participation in medical triads (p.40).

In the following excerpt, the doctor is eliciting detailed information regarding the patient's heart problem. In line 1, he addresses the patient with the question: 'And did you say.. you suffered heart disease earlier', as indicated by the doctor's use of the singular pronoun '汝/li' 'you' in southern Min. However, the patient does not catch the doctor's question, as indicated by the patient's silence and the question '嗯/enn?' 'what?' in line 2. The doctor repeats his question and points to his own chest; at the same time, he looks at the companion (i.e. the son of the patient). The son then takes the answer turn and provides information in line 4 about an accident which affected his father's chest. The doctor's eye contact with the companion in line 3 marks the companion as the addressee of his question. Line 3 is thus a doctor-companion dyad.

Excerpt 5. (Mr. Khoh 74M; main language: Southern Min)

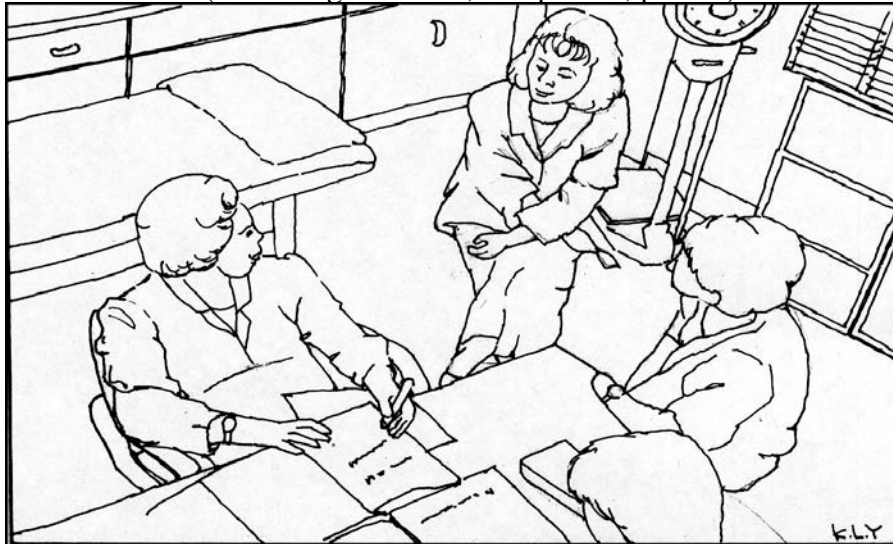
1. Dr. Niung: 啊汝講...卡早有.心臟病喔?
A li kong.. khah-ca u sim-cong-penn oo?
 PARTICLE you say earlier have heart disease QUESTION
2. Mr. Khoh: ..嗯?
 ..*Enn?*
 what
- 3. Dr. Niung: **{the doctor points to his own chest and looks at the son}**
 心臟是按啲?
Sim-cong si an-na?
 heart be what problem
4. Son: ..伊卡早是..這叨是卡早.卡早去予 teh 著啦,
 ..*I khah-ca si ce to si khah-ca khah-ca khi-hoo teh-tioh lah*
 he earlier be this EMPHASIS be earlier earlier PASS hit PARTICLE

Translation

1. Dr. Niung: And did you say.. you suffered heart disease earlier?
2. Mr. Khoh: ..What?
3. Dr. Niung: **{the doctor points to his own chest and looks at the son}**
 What's wrong with (his) heart?
- 4. Son: ..He was, in the earlier days..this part, in the earlier days. In the earlier days, it was hit (by something).

Figure 2. Spatial arrangement of the medical encounter.

(Left to right: doctor, companion, patient)



The companion is the doctor's addressee → doctor-companion dyad.

Figure 3. Spatial arrangement of the medical encounter- 1.

(Left to right: companion, patient, doctor)



Is the patient or the companion the doctor's addressee?

However, there are some situational factors that prevent eye contact from being a reliable indicator. First of all, the doctors need to complete the written records for each patient and mark the prescription on the computer screen. Also, when the patient and patient companion

are facing the doctor from the same angle, then the addressee is again ambiguous. For example, it is clear in Figure 2 that the doctor's addressee is the companion who sits between the patient and the doctor; whereas in Figure 3, it is less clear whether the patient or the companion, who stands behind the patient, is the addressee. Among the fifteen encounters that we have documented, thirteen of the companions positioned themselves in a location as shown in Figure 3. The patient walked into the room first, followed by the companion who then stands behind the patient or near the door. This favored position that most companions take prevents eye contact from being a reliable indicator in most occasions.

5. Conclusion

Both the works by Baker and Aronsson and Rundstrom are devoted to the issue of how the presence of a companion affects the doctor's attention to the patient. However, Baker's methods in identifying the addressees are not clearly stated, and Aronsson and Rundstrom's work on pediatric triads is not fully applicable in geriatric triads. Rosenfeld's work furnishes us with a more thorough system for analyzing triadic interaction; however, the powerful indicators which Rosenfeld relies on are largely not available in our data. Vocatives hardly ever occurred in our data. The use of the third person pronoun and the second person singular pronoun resolves 32.7% of the cases. Among the three indicators observed in our data, code-switching resolves 1.8% of the cases, and the occurrence of relationship deictics is restricted to the family history section. For the remaining of 50–60% of the cases, we will have to make use of indicators which are available but not reliable, such as discourse structure and eye contact.

In our experience, if one member of the patient party, such as the companion, is more inclined to be verbally inactive, then most of the conversation becomes doctor-patient dyads. We do not need indicators to identify the participant structure simply because the companion does not talk. If both the patient and the companion are verbally active, only the powerful indicators will work, such as code-switching or relationship deictics, which unfortunately are not always available. In these ambiguous cases, discourse structure does not provide a reliable solution either, as shown in the example in section 3.4. In our counting of the amount of participation by the fifteen pairs of patients and companions, there are a total of five companions who provide as much as or more information than the patients do. In these five cases, the doctor's addressees are often left ambiguous. If we leave these active cases as ambiguous or mark them as doctor-patient-companion 'triads' (cf. Rosenfeld 1996:107), then our analysis does not resolve the first issue—how much of the doctor's attention is directed to the patient and how much to the companion. Yet, it is these cases, with an active patient and

an active companion, which are more of a concern to the doctors in terms of their interviewing skills.

The above discussion presents the methodological problems in identifying the addressee of the doctor's questions. This discussion however, does not suggest that the doctor's addressees are always unidentifiable. When ambiguity is observed, in most cases it is hard to judge whether the ambiguity is intended consciously or unconsciously. However, there are a few marked cases that the doctor or the companion intentionally excludes the patient. For example, as one of our researcher approached Mr. Tian and his daughter to recruit them in this research, the daughter mentioned to the researcher that her father suffered 'cancer' (uttered in English) and she did not want him to know about that. At one point in Mr. Tian's interaction with Dr. Song, the daughter asked Dr. Song '可是我想到他有 cancer, 是不是它已經轉移到那邊來了/ ke-shi wo xiang-dao ta you cancer, shi-bu-shi ta yi-jing zhuan-yi dao na-bian lai-le?' 'but since he has cancer, I thought about the possibility of metastasis?' Dr. Song immediately picked up the daughter's concern and aligned with her use of English and asked her: 'Cancer 多久了/ cancer duo-jiu-le? 'How long has (he suffered) the cancer?'

In this example, both the daughter and the doctor exclude the patient intentionally when dealing with a sensitive topic, such as cancer. Although Dr. Song is not informed of the daughter's intention beforehand (that she prefers her father not knowing about the cancer he suffered), most doctors are trained to be sensitive when dealing with difficult topics. Following Goffman's terms (1981), Mr. Tian is 'present' and 'ratified' but not 'addressed' in the interaction. This exclusion of the patient is done in a subtle way by code-switching. However, a clear-cut case like the above example barely exists in the fifteen encounters. In most cases, it is ambiguous whether the doctor picks up one or two addressees and whether his or her choice is made intentionally or unconsciously.

Besides these methodological problems, there are two more practical and logical concerns worth attention. When doctors are trained to interview, they are taught that gathering firsthand information is always the top priority. Also, the theme of the medical encounter is the patient's health problem. Thus, the patient has the most direct access to the information which the doctor requests. Therefore, as long as the patient is present and ratified in the encounter, the patient is the legitimate primary addressee of the doctor's questions. Even though there is strong linguistic evidence showing that the doctor is addressing the companion (such as 'so, your father suffered from his coughing problem when he was young?'), how could we be justified in stating that the doctor addresses only the companion when the purpose is the patient's health problem and first-hand information is considered the top priority?

On the other hand, even though there is strong linguistic evidence indicating that the

doctor is addressing the patient (such as ‘Is there anything about your family that worries you recently?’), there is always a possibility that the doctor might expect the companion to facilitate the patient’s information-providing acts whenever needed. This concern captures the holistic characteristic of the ‘bio-psychosocial model’ (Engel 1980) of the doctor-patient relationship. It emphasizes the importance of information about the family, and the social support for the patients, which is sometimes available or observable by interacting with the companions—who, in this research, are the adult children of the elderly patient. With the consideration that both patients and companions are providers of potentially important information, the issue of how doctors distribute their attention may not seem a major concern.

Seen in light of the above methodological problems and practical concerns, we decided that the issue of how doctors direct their questions is neither an important concern nor a methodologically workable issue in the Taiwanese geriatric triads. Instead, we propose the following directions as a way to measure the effect of the companion in the medical triads.

We suggest that, instead of focusing on the ‘question part’ of the question-response pairs, it is the ‘response part’ that discourse analysts could focus on. The analysis of the response part can be dealt with in the following ways.⁶ First of all, when doctors pose questions, who responds to the questions and how are the responses sequentially organized? Do patients alone, companions alone, or both patients and companions collaboratively respond to the doctors? In the occasions in which companions respond to doctors’ questions, do the companions’ utterances precede, overlap with, or follow the patients’ utterances? This analysis of the sequential structure of the response part will be a tool to explore whether the patient’s priority of providing complete and first-hand information is well-maintained in the presence of the companions. (For this issue, please refer to Aronsson and Rundstrom 1988, and Tsai 2000). Secondly, why do companions respond to doctors’ question? Are their participations motivated by doctors, patients, or themselves? For example, the companion may respond to the doctor’s question because there is an obvious delayed response or hesitation from the patient, or because he/she receives eye contact from the doctor. In the former case, the companion’s participation is motivated by repairing the patient’s trouble and in the latter case by the doctor. To tackle this issue, the indicators observed in our data (e.g. eye contact, code-switching, and relationship deictics) and those introduced by Aronsson and Rundstrom, and Rosenfeld (i.e. personal deictics and vocatives) can be applied to see how the companions’ participation is motivated in the dynamic interaction. This approach takes both the discourse and interaction contexts to account for the companion’s participation in the

⁶ Readers who are interested in the details of the alternative framework suggested here please refer to Tsai (2000, chapters 7–10).

response part.

Among the literature, identifying the addressees of doctors' questions has been seen as a primary way to measure how the presence of the third person affects the doctor-patient communication. This current study contributes to the fields of discourse analysis and medical discourse by examining applicability of the pre-existing frameworks in identifying participant structure in Taiwanese geriatric triads. Our presentation shows the lack of a valid linguistic measurement of identifying the doctor's addressee in medical triads. We also challenge the possibility of identifying doctors' 'intended' addressee, and the value of distinguishing whether the doctor is addressing the patient or the companion from the medical professional's perspectives.

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TSAI Mei-hui
Department of Foreign Languages and Literature
National Cheng Kung University
tsaim@mail.ncku.edu.tw

三人行醫病對話參與結構分析之困難

蔡美慧

成功大學

近幾年來有愈來愈多的學者致力於三人行醫病對話的言談互動(例如 Aronsson and Rundstrom 1988, Baker 1996, Rosenfeld 1996)。其共同的焦點為探討醫師是否因有第三者(例如陪同的家屬)在場而影響他對病人應有的注意力。藉由分析對話中的代名詞、稱呼語等言談成份,研究人員釐清互動中的參與者結構,例如當醫師對病人發問則參與者結構為”醫師病人之二人對話”,對陪同家屬發問則為“醫師家屬之二人對話”,研究人員計算出此兩種參與者結構之比例,進而得出在場的家屬是否影響了醫師的問診。在本研究中,我們試圖運用西方學者所建立的研究架構檢視我們於台灣南部某教學醫院所蒐集的三人行問診對話(即醫師、老年病人、病人之隨行子女),發現文獻記載的研究架構並無法提供一套有效釐清參與者結構的方法。本文之目的即在於檢視三組研究架構(Aronsson and Rundstrom 1988, Baker 1996, Rosenfeld 1996)運用於中文言談對話之困難,尤其是當家屬與病人皆積極發言參與時,對話的參與者結構也就更難釐清。基於方法學之困難,我們認為以分析參與者結構為出發點探討隨行家屬對醫病互動影響,並非值得嘗試之角度,最後我們並提出其他可行的研究方向,提供學界參考。

關鍵詞：言談分析、參與者結構、醫病對話、三人行互動