

ORIGINAL ARTICLE

Semantic relations and prosodic features of *ranhou* in spontaneous Mandarin conversation

Qing Lai¹, Xia Guo^{2*}

¹ Chengdu College of Arts and Sciences, Jintang Campus, 278 Xuefu Avenue, Jintang, Chengdu 610401, Sichuan, China

² College of Foreign Languages and Cultures, Sichuan University, China

Abstract: *Ranhou* ‘then’ is traditionally defined as a conjunction, indicating succession of two events. Adopting the methodology of Interactional Linguistics, this study explores semantic relations of *ranhou* in Mandarin face-to-face and telephone conversations. An examination of the data shows that besides succession, *ranhou* can express other nine semantic relations, including causality, progression relation, coordinating relation, adversative relation, additive relation, enumeration, hypothesis, alternative relation, concession and be no practical meaning as well. Meanwhile, prosodic features of *ranhou* are explored with the help of software Praat and Audacity. It is suggested that eleven semantic relations vary in mean pitch range and mean length. Although each token of *ranhou* differs from each other in prosody, with respect to loudness, *ranhou* can be stressed on *ran*, or *hou* and also be articulated without loudness. But in a whole, loudness of *ranhou* is mostly put on *hou*.

Keywords: *ranhou*; semantic relation; prosodic feature; spontaneous Mandarin conversation; Interactional Linguistics

*Corresponding author: Xia Guo, College of Foreign Languages and Cultures, Sichuan University, No.24 South Section 1, Yihuan Road, Chengdu City 610065, Sichuan Province, China; 542316748@qq.com

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1. Introduction

Ranhou is traditionally defined as a conjunction, indicating succession of two events in terms of the seventh edition of Chinese Dictionary (2016: 1092). For instance:

学	然后	知	不足
xué	ránhòu	zhī	bùzú
learn	RANHO	know	shortcoming
‘Learn and know the shortcoming.’			

Previous studies on *ranhou* have mainly focused on its multifunctionality. For example, it is

argued that *ranhou* can be a discourse marker to continue turn in interaction (Fang, 2000), to mark successive relationship, enumeration and start new topics in conversations (Xu, 2009), to play a transitional role in switching the discourse from conversation setting to narrative setting in narration (Zhu, 2017) and to be a topic-shifting and trail-off marker (Wang, 2018).

Instead of predefining some functional categories, the present study first thoroughly investigates each token of *ranhou* in the data and focuses on semantic relations of *ranhou*, which refers to meanings expressed by *ranhou* when it is used to connect turn construction units (TCUs) before and after it in one turn. And two methods, substitution and deletion, are used to confirm the semantic relation reflected by the word *ranhou* in the data. Second, the paper examines prosodic features of *ranhou* to verify whether different semantic relations match different prosodic features.

Thus, the article examines *ranhou* in naturally occurring conversations, mainly revolving around the question: what semantic properties does *ranhou* present in talk-in-interaction. Specifically, 1) what kind of semantic relations does it present in interaction? 2) what prosodic features does it reflect with relation to its semantic relations? 3) what prosodic features does it display?

To clearly present features of *ranhou* in conversations, the article is organized in the following manner. First, data and methods are explained to address the need for further exploration of *ranhou* in spontaneous conversations. Next, core concepts are displayed to pave the way for the analysis. Then, a formal analysis is conducted to give an in-depth and comprehensive discussion of *ranhou* on the basis of the established integrated theory. The concluding section includes the summary and discussion of its findings.

Data

The present study has been carried out with theoretical orientation of Interactional Linguistics. It takes a twofold empirical stance—it advocates empirical data from natural interaction as its object of study, and it seeks empirical evidence from the same data for the validation of its analyses. It uses naturally occurring data, conducts context-sensitive analyses in an online perspective, and strives to ground its categories empirically as well as to warrant its claims through participant observation.

Hence, the data, a total of 6.77 hours, come from sixteen audiotaped telephone and face-to-face interaction among native speakers of Mandarin collected through participant-observation by the recording tool. The topics involved are rich, mainly including education, job hunting, the experience of being volunteers, visiting Chengdu, work, and scholarship. The details of data and participants are described in the table below. The part of the collected data that involves the privacy of others has been deleted or processed by other ways. The names are replaced by English symbols. The letter M and F denote male and female respectively. In a bid not to affect analysis, tokens of *ranhou* expressed by the author have been excluded from the totality. Eventually, 530 tokens of *ranhou* have been found.

And data were intermediately transcribed following Du Bois transcription and a Chinese character-based three tier designed based on Du Bois transcription (Tao, 2001; Lu et al., 2014) to better show non-English data. The data are transcribed by the intonation unit (IU) and each line is numbered to describe data easily. The intonation unit (IU) is defined as a stretch of utterance produced under a single coherent intonation contour (Du Bois et al., 1993: 47; Tao, 1996: 35). To transcribe effectively, Praat and Audacity were adopted in that the technical tools can reflect a series

Table 1. Basic information of data

No.	File Name	Duration	Number of speakers	Gender	Age range	Type	Relationship
1	WL	13m	2	M F	24-35	face-to-face	teacher & student
2	BHPL	38m20s	4	F F F F	22-25	face-to-face	alumnae
3	PWWL	17m17s	4	F F F F	19-24	face-to-face	classmates
4	YL	9m40s	2	F F	24-25	telephone	classmates
5	ZL	10m54s	2	M F	19-24	face-to-face	alumnae
6	LL	9m15s	2	M F	24-40	face-to-face	teacher & student
7	ZS	7m50s	2	F F	19-20	face-to-face	friends
8	GYZL	41m44s	4	F F F F	24-40	face-to-face	teacher & student
9	ZYL	6m29s	3	F F F	24-25	face-to-face	classmates
10	LL	7m43s	2	M F	24-25	telephone	friends
11	GZXLZYL	30m40s	7	F F F F F F F	24-40	face-to-face	teacher & student
12	HZL	56m04s	3	F F F	24-25	face-to-face	classmates
13	ZL	20m04s	2	F F	24-25	face-to-face	friends
14	SL	48m29s	2	F F	24-30	face-to-face	strangers
15	CL	1h10m53s	2	F F	23-25	face-to-face	alumnae
16	YL	8m25s	2	F F	24-25	face-to-face	Friends

of prosodic features and pause respectively. The data have been transcribed in pinyin Mandarin, then translated into English, first literally and then into a natural form. Therefore, each excerpt consists of three lines, though in some cases the more idiomatic translation is not shown line-by-line but rather at the end of that turn.

2. Theoretical perspective: turn and online perspective

The analysis of *ranhou* is closely associated with interaction and is context-dependent. To clearly clarify, the definition, component and classification of turn should be mentioned, since the analysis of *ranhou* closely attaches to them. Although the concept of turn was proposed by Sacks et al. (1974), the definition was not crystal clear. In Edmondson's eye, turn means the opportunity to become a speaker at some point in the conversation and what a person says when he/she is the speaker (Edmondson, 1981). However, there is no clear standard, so some disagreements have occurred in distinguishing the turn from the non-turn. To solve disagreements, Liu defined turn as the words that the speaker continually addresses at any time during the conversation, and the end is marked by the interchange of the role of the speaker and the listener or the silence of the parties (Liu, 2004: 46). This definition includes two criteria for measuring turn. First, whether the speaker's words are continuous, that is, whether there is silence at the end of a sequence of grammatical semantic completions. If there is a silence, usually lasting over two seconds, then the speaker's words will be more than one turn. The second is whether there has been a change in the role of the speaker and the listener. If it does, it marks the end of a turn and the beginning of the next turn.

And turn could be composed of interactionally achieved, flexible, and adaptable units at talk that are oriented to as relevant by the participants, called as turn construction units (TCUs) (Selting, 2000). Turn can be classified into full turn, feedback items and half turns (Liu, 2004). The feedback item is the form of the listener's reaction to what the speaker said. According to Liu, the feedback project has six basic characteristics: 1) issued by the listener; 2) objectively not interrupting the

speaker's turn; 3) subjectively not asking for the intention of the turn, but encouraging the speaker to keep the turn: 4) with the relatively short form; 5) not providing new information and 6) not a trigger for the answer structure. In Chinese talk-in-interaction, words, such as en (em), a (em), dui ('right') are common feedback items that can be frequently found in the data. Half turn contains subsidiary turn, unfinished turn and the overlap when the hearer completes the speaker's turn.

The analysis of *ranhou* relies on turn as well as an online perspective. The online perspective refers to a progression in the analysis that follows the real-time production and processing of talk by the participants (Couper-Kuhlen and Selting, 2018: 58). Originally, it refers to turn alternation or turn by turn, or TCU by TCU. Yet as the current research is showing, there are smaller stretches of talk that are also interactively relevant, so that an online perspective requires considerations below the level of TCU (Iwasaki, 2009, 2013). Analyzing data from an online perspective means reconstructing structures both as emergent in real time and as interactional achievements. The analysis of *ranhou* depends on what is going on in the interaction: under certain circumstances and sensitivity.

3. Semantic relations of *ranhou*

The part aims to give an in-depth and comprehensive discussion of *ranhou* on the basis of the established integrated theory. It mainly explores semantic relations of *ranhou* as well as prosodic features of semantic relations. The semantic relation represented by *ranhou* refers to the relation between TCUs before and after *ranhou* in one turn. According to Xing, the semantic relation can be classified into three categories, that is, generalized parallel relation, generalized causality, and generalized adversative relation (Xing, 2001). In generalized parallel relation, there are successive, coordinating, progressive, and alternative relations since all of them reflect the list of several things. Generalized causality means the relation of cause and effect, including causality, hypothetical relation, conditional relation, inference relation and goal relation. The last category implies opposition and contrast, including adversative relation and concession.

In terms of the seventh edition of the Chinese Dictionary (2016), the word *ranhou* represents successive relation of two events (2016: 1090). However, the meaning of the word *ranhou* is extended with the semantic relation featuring diversity. Not only the successive relation can it represent, but also other relations it can reflect such as causality, coordinating relation. Two methods, substitution and deletion, are used to confirm the semantic relation reflected by the word *ranhou* in the data. In order to clearly present the semantic relation represented by *ranhou*, each category is listed in the **Table 2**.

Table 2. The semantic relations represented by *ranhou* in the data

Semantic relation	Number	Proportion
succession	190	≈35.85%
causality	100	≈18.87%
progressive relation	61	≈11.51%
coordinating relation	50	≈9.43%
adversative relation	34	≈6.42%
additive relation	9	≈1.70%

Table 2 (continued)

Semantic relation	Number	Proportion
enumeration	7	≈1.32%
hypothesis	5	≈0.94%
alternative relation	3	≈0.57%
concession	1	≈0.19%
no practical meaning	70	≈13.21%
Total	530	100

From the above table, there are eleven semantic relations represented by the word *ranhou*, and one of them is no practical meaning. Among them, the top three are succession, causality and no practical meaning, accounting for about 35.85%, 18.87% and 13.21% respectively. It reflects that *ranhou* keeps its original meaning and extends the meaning in the interaction as well.

3.1. Successive relation

By successive relation, it means actions occur continuously, or several things that happen one after another in turns. If *ranhou* represents the successive relation, it can be replaced by *jiezhe* ('and').

Excerpt 1. ZL—The conversation between a teaching assistant and a male student 05

1	L: 哦	你们	有	这样	的	一	个 .
	o	nǐmēn	yǒu	zhèyàng	de	yī	gè
	PRT	you	have	in this way	CSC	one	CL
	'Oh, you can (get the place in postgraduate recommendation) by this way.'						
2	Z: 对 ,						
	duì						
	right						
3	.. 但是	它	好像	是 ,			
	dànshì	tā	hǎoxiàng	shì			
	but	it	seem	is			
4	.. 但是	你	要	先 ,			
	dànshì	nǐ	yào	xiān			
	but	you	need	first			
5	.. 要	面试 ,					
	yào	miànshì					
	need	interview					
6 →	.. 然后	要	去	获得 ,			
	ránhòu	yào	qù	huòde			
	RANHO	need	go	get			
7	.. 那个	支教		保研			的
	nàgè	zhījiào		bǎoyán			de
	that	voluntary teaching		postgraduate recommendation			CSC
	名额 .						
	míng'e.						
	place.						
	'But it needs you to be interviewed first. RANHO, (you) need to get the place of postgraduate recommendation of voluntary teaching.'						

Excerpt 1 is mainly about one way of the postgraduate recommendation, that is to say, being a volunteer teacher in a rural area. The speaker described the procedure of getting the place in postgraduate recommendation (line 3–7), in which the applicant firstly needed to take an interview. If he/she performed well in the interview, the applicant would be graduate candidate. In the example, there appears xian...*ranhou* (*‘first...and then’*), which marks being a graduate candidate takes place after the interview.

3.2. Coordinating relation

Although coordinating and successive relation can be classified into generalized coordinating relation based on Xing (2001), the former does not emphasize the sequence of event as the latter does. It states several things or aspects of one thing. For example,

Excerpt 2. BHPL—Chat in the dormitory 01

1	B: 哦	是	的	是	的 .			
	o	shì	de	shì	de			
	INT	be	ASSC	be	ASSC			
‘Oh, yes, yes.’								
2	.. 现在	就	我	还	有	Hh	然后 ,	
	xiànzài	jiù	wǒ	hái	yǒu	name	ránhòu	
	now	just	I	still	have	NAME	RANHOU	
‘Now, there are me and Honghong, RANHOU’								
3	.. 还	有	另外	一	个	同学	他们	
	hái	yǒu	lìngwài	yī	gè	tóngxué	tāmēn	
	still	have	other	one	CL	classmate	they	
→	要	去	嘛	然后		不	知道	
	yào	qù	ma	ránhòu		bù	zhīdào	
	want	go	PRT	RANHOU		NEG	know	
	有	没	有	五	个	人	要	不
	yǒu	méi	yǒu	wǔ	gè	rén	yào	bú
	have	NEG	have	five	CL	person	need	NEG
	要	开	课 ,					
	yào	kāi	kè					
	need	offer	class					
‘and another classmate wants to go. They will go. RANHOU, it is unknown whether the number of students selecting the course is up to five and whether (the teacher) offers the course,’								
4	.. 所以	我	的	学分	都	还	没	有
	suǒyǐ	wǒ	de	xuéfēn	dōu	hái	méi	yǒu
	so	I	POSS	credit	even	still	NEG	have
	够	就	很	愁	因为	当时	我	计划
	gòu	jiù	hěn	chóu	yīnwéi	dāngshí	wǒ	jìhuà
	enough	just	very	sad	because	then	I	plan
	的	时候	我	是	把	这个	计划	进去
	de	shíhòu	wǒ	shì	bǎ	zhègè	jìhuà	jìnqù
	CSC	time	I	be	BA	this	plan	into
								PRT
‘So, my credit doesn’t reach the standard of graduation. I am worried, because the course is included in my course plan when I made it.’								
‘Now, there are me, Hh and another classmate who select the course. So, I don’t know whether there are five persons selecting the course and whether the teacher offer the course. So, my credit will not reach the standard and I am worried since the course is in my course plan.’								

Excerpt 2 is about one of courses of the speaker. She told that there were only three students who selected the course (line 2). Whether the total number of students selecting the course was up to five was uncertain and hence, whether the teacher offered a course was also not sure (line 3). Therefore, the speaker worried that she could not get enough credits since the course was in her plan (line 4). In the excerpt, the focus is on the first token of *ranhou* that is the demonstration of the coordinating relation, since it lists those who have selected the course.

3.3. Progressive relation

The progressive relation also belongs to the generalized parallel relation, but it further illuminates the event happened before.

Excerpt 3. WL—Online education 01

1 →	W: 然后	他	自己,				
	ránhòu	tā	zìjǐ				
	RANHOU	3SG	(him)self				
2 →	... 就	是	结	了	婚	然后	又,
	jiù	shì	jié	le	hūn	ránhòu	yòu
	just	be	get	PFV	marry	RANHOU	again
3	... 查	出来	好像,				
	chá	chūlái	hǎoxiàng				
	find	out	seem				
4	... 是	不	能	要	小孩.		
	shì	bú	néng	yào	xiǎohái		
	be	NEG	able	have	baby		
‘And he got married, and was found out something wrong, that is, he cannot have a family.’							

Excerpt 3 is the part reason why one student in W’s class was in a bad mood, which led him to curse one teacher in QQ group (QQ is an Internet-based instant messaging (IM) software) after he did not get the answer of the final exam from the teacher. Before the line 1, the speaker told the part reason that the student’s mother was likely to catch a cancer. And the focus in line 1 to 2 is on the student himself. The line 3–4 further described the student’s condition.

3.4. Alternative relation

Although the proportion of alternative relation registers about 0.57%, the number reflects the existence of alternative relation. Xing (2001) said it could also be classified into the generalized parallel relation. The alternative relation is disjunctive, which differs from the first three subcategories mentioned before. The instance is displayed below.

Excerpt 4. BHPL—Chat in the dormitory 03

1	H: 我	给	你	讲	你	要,
	wǒ	gěi	nǐ	jiǎng	nǐ	yào
	I	give	you	tell	you	have
‘I tell you that you want,’						
2	.. 读	语音	的	话,		
	dú	yǔyīn	de	huà		
	study	phonetics	ASSC	if		
‘If you want to study Phonetics,’						
3	.. 你	至少	就	说,		

Excerpt 4 (continued)

	nǐ	zhìshǎo	jiù	shuō		
	you	least	just	say		
4	.. 呃 =	那	个	什么 ,		
	e =	nà	gè	shénme		
	PRT	that	CL	what		
5	.. 呃 =	那	个	什么 ,		
	e =	nà	gè	shénme		
	PRT	that	CL	what		
6	.. 什么	上外 .				
	shénme	shàngwài				
	what	Shanghai International Studies University				
		'At least, you should choose Shanghai International Studies University.'				
7	B: 嗯 .					
	en					
	INT					
8 → H:	然后	暨 ,				
	ránhòu	jì,				
	RANHOU	Jinan University				
9	.. 不	是	什么	什么	什么 ,	
	bù	shì	shénme	shénme	shénme	
	NEG	is	what	what	what	
10	.. 那	个	叫	什么	来	着 ,
	nà	gè	jiào	shénme	lái	zhe,
	that	PRT	call	what	come	PRT
11	.. 复旦 .					
	fùdān					
	Fudan University					
		'RANHOU, Fudan University.'				
12	B: 嗯 .					
	en					
	INT					
13 → H:	然后	这个	南开 ,			
	ránhòu	zhègè	nánkāi			
	RANHOU	this	Nankai (University)			
14	.. 这些	做	的	比较	好 ,	
	zhèxiē	zuò	de	bǐjiào	hǎo	
	these	do	CSC	comparatively	good	
15	.. 或者	是	暨南大学	也	可以 .	
	huòzhě	shì	jìnnándàxué	yě	kěyǐ	
	or	be	Jinan University	also	ok	
		'Nankai University is good on Phonetics and Jinan University is also ok.'				
		'I tell you that if you want to study Phonetics further, you'd better choose Shanghai International Studies University or Fudan University. RANHOU, Nankai University is good on Phonetics and Jinan University as well.'				
16	B: 哦					
	o					
	PRT					

Here, the speaker H recommended B universities that were good at phonetic studies. Although four patterns of *nageshenme* ('emmm') were used to help her remind of names of universities in her telling, the speaker mentioned four universities in all, which were connected by the word *ranhou*, forming the pattern *shangwai, ranhou fudan, ranhou nankai, huozheshi jinandaxue*. Actually, both of *ranhou* here can be replaced by *huozhe* ('or'), providing the choice for the hearer.

3.5. Enumeration

Besides four subcategories in generalized parallel relation, the word *ranhou* can also represent the enumeration in the data, which can be proved by the following example.

Excerpt 5. BHPL—Chat in the dormitory 11

1	B: 他们	有	那	种	健身房	里面	有	配套
	tāmēn	yǒu	nà	zhǒng	jiànshēnfáng	lǐmiàn	yǒu	pèitào
	they	have	that	CL	gymnasium	in	have	match
	'There are corresponding courses in the gym.'							
	的	像	我		之前	那		种,
	de	xiàng	wǒ		zhīqián	nà		zhǒng
	ASSC	like	I		before	that		CL
	'Like me. (the gym) I went to before.'							
2	.. 就	是	它		什么	都		有,
	jiù	shì	tā		shénme	dōu		yǒu
	just	be	3SG		what	all		have
	'It offers various courses.'							
3	.. 有	舞蹈,						
	yǒu	wǔdǎo						
	have	dance						
4	.. 健身	舞蹈,						
	jiànshēn	wǔdǎo						
	fitness	dance						
5 →	.. 然后	也	有		瑜伽,			
	ránhòu	yě	yǒu		yújiā			
	RANHOU	also	have		yoga			
6 →	.. 然后	也	有		器材	等等.		
	ránhòu	yě	yǒu		qìcái	děngděng.		
	RANHOU	also	have		equipment	etc.		
	'(There are) fitness dance, yoga, fitness equipment etc.'							
7	H: 嗯.							
	en							
	PRT							

The interlocutor chiefly talked what she could enjoy in the gym. According to her, there were fitness dance, yogurt, and fitness equipment in the gym (line 4–6). The speaker enumerated them with two tokens of *ranhou*. Although the other two words *yeyou* ('also') follow the word *ranhou*, the deletion of them does not affect *ranhou* to express the enumeration.

3.6. Causality

The frequency of causality existing in the data is relatively high. Causality refers to the relation of cause and effect. In the conversation, *ranhou* can represent cause and effect as well.

Excerpt 6. ML—The dialogue between two strangers 04

1	L: 你	为什么	要	去	遂宁	办?			
	nǐ	wèishénme	yào	qù	Suining	bàn			
	you	why	need	go	toponym	handle			
'Why do you handle affairs in Suining?'									
2	M: 我们	那	边	有	分	公司.			
	wǒmēn	nà	biān	yǒu	fēn	gōngsī			
	we	that	side	you	branch	office			
'Our branch office is over there.'									
3	L: 哦								
	o								
	INT								
4	M: 公司	在	那	边,					
	gōngsī	zài	nà	biān					
	office	at	that	side					
'The (branch) office is over there.'									
5 →	.. 然后	那	边	有	一	个	不	太	靠谱
	ránhòu	nà	biān	yǒu	yī	gè	bù	tài	kàopǔ
	RANHOU	that	side	you	one	CL	NEG	so	reliable
	的	人,							
	de	rén							
	CSC	person							
'RANHOU, an unreliable person is over there.'									
6 →	.. 然后,								
	ránhòu								
	RANHOU								
7	.. 没	办法,							
	méi	bànfǎ							
	NEG	method							
'(That person) can do nothing about it.'									
8	.. 解决	不	了	了,					
	jiějué	bù	liǎo	le					
	solve	NEG	PRT	PFV					
'cannot solve (the problem).'									
9 →	.. 然后	就	自己	过去.					
	ránhòu	jiù	zìjǐ	guòqù					
	RANHOU	just	self	go					
'RANHOU, I have to handle affairs by myself.'									

The case involved two strangers who talked about M's short business trip. The workplace of M is usually in Chengdu. But she had to go to the branch office in Suining since an officer was unreliable and could not handle a thorny problem (line 5–9). There are three tokens of *ranhou*. The first is used to express cause of the business trip and can be replaced by *yinwei* ('because'); the second is to further describe the reason of the business trip but cannot be replaced by *yinwei* ('because') since it represents progressive relation and the last reflects the effect brought by the officer unreliability.

3.7. Hypothetical relation

According to Xing (2001), the hypothetical relation also belongs to generalized causality, since it

reflects the cause and effect in logic. *Ranhòu* in the hypothetical relation can be replaced by *ruguo* ('if') and *name* ('then'), which can be presented by the case below.

Excerpt 7. ML—The dialogue between two strangers 14

1	M: 要是	那	个	你	审	的	审计	报告	里面,
	yàoshì	nà	gè	nǐ	shěn	de	shěnjì	bàogào	lǐmiàn
	if	that	CL	you	audit	ASSC	audit	report	in
'If the report you audit,									
2	... 被	稽核到,							
	bèi	jīhédao							
	PFV	check							
'is checked,'									
3 → ..	然后	有	问题,						
	ránhòu	yǒu	wèntí						
	RANHO	have	problem						
'RANHO, there is a problem,'									
4 → ..	然后	你	就	惨	了.				
	ránhòu	nǐ	jiù	cǎn	le				
	RANHO	you	just	terrible	PRT				
'RANHO, you are in trouble.'									
'If the report you audit is checked to have a problem, you will be in trouble.'									

The example involves the accountant who talked about the audit report. She mentioned the person would be punished if there existed mistakes in the report that she/he was responsible for. In her narration, two tokens of *ranhòu* were used to express hypothesis. The first can be replaced by the token *ruguo* ('if'), and the second equals to *name* ('then'). Meanings of the line 3 and 4 actually are "if there are mistakes in the report, then the person will be in trouble".

3.8. Adversative relation

Now, the attention is on the adversative relation that implies the opposite or contrast. The case is presented below to illustrate the adversative relation.

Excerpt 8. GZYL—An interaction between one teacher and her three students 14

1	Z: 因为	他	是,						
	yīnwéi	tā	shì						
	because	3SG	be						
'because he is,'									
2	.. 因为	我们	财务处	事	也	很	多	嘛,	
	yīnwéi	wǒmēn	cáiwùchù	shì	yě	hěn	duō	ma	
	because	we	finance section	thing	also	so	many	PRT	
'because there are a lot of rules in the finance section of our school,'									
3	.. 然后	银行	啊	也	是,				
	ránhòu	yínháng	a	yě	shì				
	RANHO	bank	PRT	also	be				
'RANHO, so does the bank,'									
4 →	.. 然后,								
	ránhòu,								
	RANHO								
5	.. 他	就	说	没	什么	我们	南非	那	边,
	tā	jiù	shuō	méi	shénme	wǒmēn	nánfēi	nà	biān

Excerpt 8 (continued)

	3SG	just	say	NEG	what	we	South Africa	there	over
'He said it's ok since South Africa is similar to (China),'									
6	.. 也	是	这	样	.				
	yě	shì	zhè	yàng					
	also	be	this	like					
'like this, too.'									

The speaker narrated the reaction of foreign teacher when he faced changeable requirements of financial office and bank in school in the example. Here, the word *ranhou* can be replaced by *danshi* ('but') to express the adversative relation, for foreign teachers usually complain about changeable requirement. However, the foreign teacher mentioned by the speaker did not grumble since he always encounters the same situation in South Africa.

3.9. Concession

Concession is also the subcategory of generalized adversative relation, in which the word *ranhou* can be replaced by the word *suiran* ('although'). The case below is to illustrate the point.

Excerpt 9. GZYL—An interaction between one teacher and her three students 03

1	G: 其实	这个	无所谓	因为	包括	他	在	
	qíshí	zhègè	wúsuǒwèi	yīnwéi	bāokuò	tā	zài	
	actually	this	not to matter	because	including	3SG	at	
	各自	的	学院	它,				
	gèzì	de	xuéyuàn	tā				
	own	POSS	college	it				
'Actually, this doesn't matter. Because he is in own college,'								
2	.. 其实	现在	很	多	年轻	老师	的	加入
	qíshí	xiànzài	hěn	duō	niánqīng	lǎoshī	de	jiārù
	actually	now	so	many	young	teacher	ASSC	join
	那些	海归	呀	他	也	是,		
	nàxiē	hǎiguī	ya	tā	yě	shì		
	those	returnee	PRT	3SG	also	is		
'Actually now, so many young teachers join in and these returnees are also,'								
3	.. 全	英文	的,					
	quán	yīngwén	de					
	all	English	PRT					
'(teach) in English'								
4 →	.. 然后	有	些	全	英	当然	并	不是
	ránhòu	yǒu	xiē	quán	yīng	dāngrán	bìng	búshì
	RANHO	have	some	all	English	sure	and	NEG
	那	种	很					
	nà	zhǒng	hěn,					
	that	sort	very					
'RANHO, some English teaching is certainly not like that,'								
5	.. 真的	很	精	课	的	那	种	全
	zhēnde	hěn	jīng	kè	de	nà	zhǒng	quán
	real	very	perfect	class	CSC	that	sort	all
	英文	真的	是	有点	水	的	那	种
	yīngwén	zhēnde	shì	yǒudiǎn	shuǐ	de	nà	zhǒng
	English	real	is	a bit	not good	CSC	that	sort

Excerpt 9 (continued)

全	英文	哈 .					
quán	yīngwén	ha					
all	English	PRT					
‘...is really perfect. (Some English) are really not good.’							
‘Actually, teaching in English is not a matter. Although some English teaching is not very good, there are plenty of young teachers in their own colleges who teach in English and those returnees also teach in English.’							

The speaker in the **Excerpt 9** primarily discussed the English teaching is not a matter. Although the English teaching in some courses is not qualified, the pattern of English teaching has been formed as a whole since novice teachers employed by each college can teach students in English. The *ranhou* here is used to express concession and can be replaced by the word *suiran* (‘although’).

3.10. Additive relation

Besides, *ranhou* can also express additive relation, which means it can be used to ask for more information. The point is illustrated by the following case.

Excerpt 10. BHPL—Chat in the dormitory 03

1	H: 那	你	一	周	上	几	结	课 ?
	nà	nǐ	yī	zhōu	shàng	jǐ	jié	kè?
	that	you	one	week	have	several	CL	class
‘How many (yoga) classes do you have in a week?’								
2	L: 它	也	是	那种	卡 .			
	tā	yě	shì	nàzhǒng	kǎ.			
	3SG	also	be	that	card			
‘It’s also that card.’								
3	H: 也	是	一	周	去	三	次 .	
	yě	shì	yī	zhōu	qù	sān	cì	
	also	be	one	week	go	three	time	
‘(You) also attend (a yoga class) three times a week.’								
4	L: 嗯	嗯	对 .					
	en	en	duì					
	PRT	PRT	right					
5 →	H: 然后	可以	去	几	个	月 ?		
	ránhòu	kěyǐ	qù	jǐ	gè	yuè?		
	RANHOU	able	go	several	CL	month		
‘RANHOU, how many months can you go? ’								
6	L: 一	个	多	月	吧	但是	那	
	yī	gè	duō	yuè	ba	dànshì	nà	
	one	CL	over	month	PT	but	that	
	是	学姐	转	的 ,				
	shì	xuéjiě	zhuǎn	de				
	is	senior	resale	CSC				
‘Over one month. But that (the membership card) is resoled by a senior.’								
7	.. 到	时候	我	自己	办	一	个 .	
	dào	shíhòu	wǒ	zìjǐ	bàn	yī	gè.	
	at	time	I	self	get	one	CL	
‘When the card is due, I will buy new one.’								

The case involves two speakers and is about the yoga course. The person L has signed up for a yoga class and the person H is willing to take one. The latter asked L how many lessons she could take a week (line 1). Having gotten the answer, H continued to ask how many months L could go (line 6). In the second question, the speaker H adopted one token of *ranhou* at the beginning of the turn to help herself to get more information of the yoga class.

3.11. No practical meaning

Besides the semantic relations represented by *ranhou* mentioned above, the word can also be used as a pause or reminder with no practical meaning to help the speaker keep the turn continuous. And the deletion of them would not influence the utterance meaning, which is showed by the Excerpt 11.

Excerpt 11. ML—The dialogue between two strangers 12

1	L: 那	那	也	挺	贵	的	呀,
	nà	nà	yě	tǐng	guì	de	ya
	that	that	also	pretty	expensive	ASSC	PRT
'That is also pretty expensive.'							
2	.. 在	外面	吃	一	日	三	餐
	zài	wàimiàn	chī	yī	rì	sān	cān
	at	outside	eat	one	day	three	meal
	天	至少	要	三十,			
	tiān	zhìshǎo	yào	sānshí,			
	day	least	need	thirty			
'It takes at least thirty yuan to eat out three meals a day.'							
3	M: 嗯 ==						
	en==						
	PRT						
4	.. 早饭	吃	不	了	那么	多,	
	zǎofàn	chī	bù	liǎo	nàme	duō	
	breakfast	eat	NEG	PRT	so	many	
'It doesn't take so much money to have breakfast.'							
5	.. 早饭	一般	随便,				
	zǎofàn	yībān	suíbiàn,				
	breakfast	usually	casual				
'(I) usually have a simple breakfast.'							
6	.. 有时候	我	一般	喜欢	自己	在	家
	yǒushíhòu	wǒ	yībān	xǐhuān	zìjǐ	zài	jiā
	sometimes	I	usually	like	self	at	home
							inside
							make
'Sometimes, I like to make breakfast on my own at home.'							
7	.. 因为	比较	近,				
	yīnwéi	bǐjiào	jìn				
	because	comparatively	close				
'because the home is close to (the company).'							
8	.. 然后	上班	我	就	起来	自己	做
	ránhòu	shàngbān	wǒ	jiù	qǐlái	zìjǐ	zuò
	RANHO	work	I	just	get up	self	cook
							PRT
							eat
'RANHO, I make breakfast by myself at weekdays.'							
9 →	.. 然后	然后	或者	是	去	去	外边
	ránhòu	ránhòu	huòzhě	shì	qù	qù	wàibiān
	RANHO	RANHO	or	be	go	go	outside

Excerpt 11 (continued)

买	的	话，				
mǎi	de	huà				
buy	CSC	if				
10 .. 包子		豆浆		啊 .		
bāozi		dòujiāng		a		
dumpling		soybean milk		PRT		
'RANHOU, I will go out to take a steamed stuffed bun and a soybean milk as my breakfast.'						

The excerpt is chiefly about how M dealt with her breakfast. After L said it would cost at least 30 yuan to eat three meals a day out (line 2), M responded that the cost of breakfast was not high (line 5). Sometimes, she liked to prepare it at home since it was not far away from the workplace (line 6–7). If she eats breakfast out, the speaker will buy dumplings and a cup of soy milk (line 8–9). There are two tokens of *ranhou* successively used in the line 8 but they can be deleted since they possess no practical meaning. Here, they are just used as pauses to take the turn.

In the section, the semantic relation of *ranhou* is examined. It is suggested that *ranhou* can present eleven semantic relations in spontaneous conversations. The next section aims to manifest the existence of these semantic relations from the perspective of prosody.

4. Prosodic features of *ranhou*

In fact, for every task that interactants face, there are not only verbal but also prosodic and phonetic resources at participants' disposal (Couper-Kuhlen and Selting, 2018). In other words, although we always articulate sound segments and execute syllables with, e.g., some pitch, loudness and timing when we speak, as participants in talk-in-interaction, we specifically mobilize certain of these features at given moments in time for interactional purposes. Moreover, prosodic phenomena can be analyzed acoustically with computer programs such as Praat, which runs on algorithms that are much more sensitive to the air-pressure variation created by sound waves.

The section explores whether there are differences in prosodic features of *ranhou* when the meaning it expresses varies. The analysis involves the latest version Praat 6.1.02, Audacity and Excel. Praat is designed by Paul Boersma and David Weenink and used to do phonetics by computer, reflecting the information such as pitch, intensity, spectrum, and waveform. Audacity is the software used to edit and denoise the audio. Excel is employed to record prosodic features of each *ranhou*.

Prosodic features mentioned here mainly involve pitch, length and loudness, since they are most consistently used for linguistic purposes and reflected in Praat. Pitch concerns the varying height of the pitch of the voice over one syllable or over a number of successive syllables; length concerns the relative duration of a number of successive syllables, or the duration of a given syllable in one environment relative to the duration of the same syllable in another environment; loudness concerns change of loudness within one syllable or the relative loudness of a number of successive syllables (Cruttenden, 1997: 2).

As mentioned before, 530 tokens *ranhou* are involved in the analysis. But 193 tokens are excluded in this section, for it is necessary to ensure the sound quality of *ranhou* when they are

put into Praat. And *ranhou* is composed of two syllables—*ran* and *hou*. One token of *ranhou* is discarded, if one of them sounds unclear, due to overlap, background noise, or other issues. At last, 337 tokens are involved in this section. To ensure the sound quality of *ranhou*, each audio is denoised through the software Audacity. The pitch of *ranhou* is the varying height over two syllables *ran* and *hou*, mainly presented pitch range; its length is about the relative duration of these two syllables; and its loudness is about relative loudness of two syllables and the position of the maximum can show where the stress is placed. The position of the maximum intensity can be place on *ran*, or *hou*. And *ranhou* may be stressed as well.

When each denoised utterance including the token of *ranhou* is imported in Praat, *ranhou* can be identified through voice, waveform, and spectrum. Praat presents the information of *ranhou*, such as pitch contour represented by blue curve, intensity shown by yellow curve and duration, as shown in the **Figure 1**.

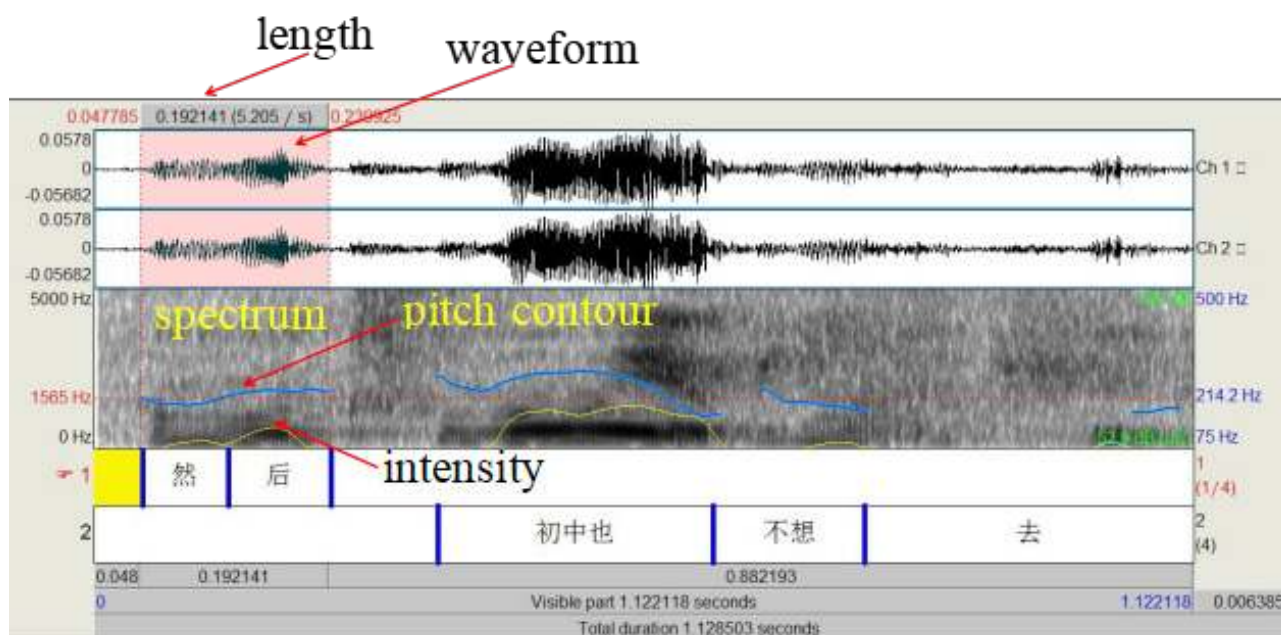


Figure 1. Information of *ranhou* in Praat.

Each denoised utterance is imported into Pratt, its information is clearly presented like Figure 1. According to the information of *ranhou* in Pratt, prosodic features of *ranhou* are obtained and recorded like **Table 3**. Actually, 337 tokens of **ranhou** are imported into Praat and their prosodic features are recorded in the Excel. Since the scope is limited, a part of the Excel is presented in the section to show what the information are recorded.

Table 3. Prosodic features of *ranhou* in WL

File name	Number (semantic relation)	Mean pitch	Pitch maximum	Pitch minimum	Pitch range	Duration	Intensity
WL	2 (P)	103.2382364	110.3550321	95.81848135	14.53655071	0.294305	<i>hou</i>
	3 (C)	107.1307922	108.8756185	103.952333	4.923285431	0.129993	<i>hou</i>
	5 (C)	101.3432565	111.1936931	95.83229991	15.36139314	0.166993	<i>ran</i>
	6 (P)	143.2304135	161.8537316	123.6218317	38.23189994	0.210258	<i>ran</i>
	7 (P)	137.2639265	145.5276841	121.7460957	23.78158844	0.142303	<i>hou</i>
	10 (P)	135.222568	157.407119	111.6733829	45.73373605	0.270526	<i>hou</i>
	11 (P)	95.29002567	102.6466659	87.40085191	15.24581403	0.292809	<i>hou</i>

Table 3 presents prosodic features of seven tokens of *ranhou* with the high quality. All of them are expressed by the speaker W in the dialogue WL. Number in the table refers to the serial number of *ranhou* used by the speaker. And letter P and C mean progressive relation and causality respectively. From the table above, it is found that every token differs from each other with respect to pitch range, duration and intensity. Although each token enjoys different features, the information of them paves the way for observing prosodic features of each semantic relation from the mean pitch range, mean length and the position of intensity, which is showed in **Table 4**.

Table 4. Prosodic features of semantic relations

Semantic relation	Number	Mean pitch range (Hz)	Mean length (metric: second)	Number of the position of maximum intensity (<i>ran-hou-unaccented</i>)
succession	121	≈83.112	≈0.275	38- 71-12
causality	64	≈73.690	≈0.223	17-34-13
progression	41	≈52.250	≈0.238	10-24-7
coordination	33	≈54.155	≈0.257	11-21-1
adversative	25	≈75.824	≈0.242	7-16-2
addition	8	≈122.312	≈0.267	3-3-2
enumeration	3	≈76.381	≈0.218	<i>hou</i> (3)
hypothesis	2	≈90.873	≈0.261	<i>hou</i> (2)
alternation	2	≈58.000	≈0.229	<i>ran</i> (1); <i>ranhou</i> (1)
concession	1	≈66.732	≈0.168	<i>ranhou</i> (1)
no practical meaning	37	≈107.884	≈0.332	9-22-2-4
Total	337	/	/	337

As the Table 4 shows, the number of enumeration, hypothesis, alternation and concession is not over 5, so they are excluded from comparison. From the statistics left, there exist differences in mean pitch range, mean length and the number of the position of maximum intensity among other semantic relations. Specially, the top three of mean pitch range are addition, no practical meaning and succession, about 122.312, 107.884 and 83.112 respectively, while that of progression is the narrowest. The mean pitch range of causality (about 73.690) is close to that of adversative (about 75.824). The mean pitch range of progression (about 52.250) is close to that of coordination (about 54.155).

In terms of mean length, no practical meaning, succession and addition rank the top three. The mean length of causality is the shortest. In addition, the length of *ranhou* without practical meaning is longer than that of *ranhou* with meanings. And the mean length of succession is longer than that of the rest semantic relations. There exist three categories based on the position of maximum intensity which reflects the stress of *ranhou*. In other words, *ranhou* in the conversation can be stressed on *ran* or *hou*. And *ranhou* can also be unaccented. But from the table, the position of maximum of intensity is mainly placed on the syllable *hou*. This indicated that the stress of *ranhou* is mostly on the syllable *hou*.

In a nutshell, the prosodic features of each semantic relation confirm that *ranhou* can express various meanings in naturally occurring conversations. And the production of semantic relation is relevant to context.

5. Discussion and conclusion

Across the data of Chinese interactions collected by the author, it is suggested that semantic relation is closely related to context. Among the semantic relations, succession and causality rank first and second in the list and no practical meaning is the third, which shows *ranhou* keeps its original meaning and develops new meanings in the conversation and being the discourse marker as well. Besides, prosodic features of *ranhou* are investigated from perspectives of length, pitch and loudness, 337 tokens of *ranhou* involved in the analysis. At the same time, prosodic features are associated with semantic relations of *ranhou*. Actually, each sound has its own prosodic features but when they are associated with semantic relations, the scene varies. As shown in Table 4, eleven semantic relations differ from each other in mean pitch range and mean length. Additive relation enjoys the widest mean pitch range, and no practical meaning takes the longest time. Loudness of *ranhou* can be placed on *ran*, or *hou*. *Ranhou* can also be articulated without loudness. But in a whole, loudness of *ranhou* is mostly put on *hou*. These findings are partly consistent with a few previous studies, which argue that *ranhou* has undergone semantic reduction and become a discourse marker in natural occurring conversations (e.g. Fang, 2000; Xu, 2009; Wang, 2018). The other part is a supplement to some previous studies (Su, 1998; Wang, 1998; Xu, 2009), since, besides successive relationship, enumeration, this study finds more semantic relations of *ranhou*, such as causality, hypothetical relation, adversative relation and verifies that each semantic relation enjoys different prosodic features.

There still exist limitations in breadth and depth of this study, which should be admitted. In terms of participants, all of them have received higher education and the number of men and women is not equal. And most data are collected on campus. Therefore, the source and richness of data are influenced, which affects, to some extent, the results of paper. Researchers of further studies on same questions should sample persons from all walks of life and all ages as participants and the number of each gender could be equal so that a clearer picture of *ranhou* can be got. For discourse, Mandarin Chinese is explored. Actually, further studies can put their attention on dialects to investigate *ranhou* in different discourse. In addition, researchers can examine the use of *ranhou* by foreign learners, finding their problems in using *ranhou*, which can further help them to learn Chinese. According to the object of study, *ranhou* is analyzed synchronically, but the grammaticalization of *ranhou* is not examined. It is worth exploring in further studies. In further studies, *ranhou* can be compared with other conjunctions to get deeper knowledge of conjunctions in talk-in-interaction.

In conclusion, it is a tentative try on exploring *ranhou* in spoken discourse from Interactional Linguistics, the findings of the paper may offer some references for other studies in spoken discourse, inspiring researchers to conduct similar studies on other discourse and fill the gap in this field. It may guide the daily oral communication of foreign learners of Chinese, enhancing their fluency and clarity in communicating with native speakers. And it may promote the development of machine translation, for the operating mechanism of *ranhou* can be redesigned in the computer in terms of the findings of the paper.

Conflict of interest

No conflict of interest was reported by all authors.

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Appendix A. Transcription conventions

(.)	A final intonation
(ˊ)	A continuing intonation
(?)	Indicates an appeal intonation
[]	Indicates the point where the current talk is overlapped by the talk of another
(..)	Indicates a longer pause. The more dots, the longer the pause.
=	Indicates a noticeable stretching of a sound. The more colons, the longer the stretching.
@@	Indicates laughter. The length of laughter is proportional to the number of “@”. Words between two “@” symbols indicate that the stretch of talk is produced with a laughing voice.
→	Points to the lines relevant to the point being made in the text.
--	Indicates a sudden cut-off of the current sound or self-interruption.
<XX>	Indicates the unclear voice.
<XXX >	Indicates the voice utterly not to be discerned.

Appendix B. Glossing conventions

3SG	third person singular
ASP	aspectual marker
ASSC	associative (<i>de</i>)
BA	a pretransitive marker (<i>ba</i>)
CL	classifier
CRS	currently relevant state (<i>le</i>)
CSC	complex stative construction (<i>de</i>)
DUR	durative aspect (<i>zhe, zai</i>)
INT	interjections in speech
NEG	negatives (<i>bu</i>)
ONOMA	onomatopoeia
PASS	a passive marker (<i>bei, gei</i>)
PFV	perfective aspect (<i>le</i>)
POSS	possessive (<i>de</i>)
PROG	progressive (<i>zai</i>)
PRT	particle
Q	question marker (<i>ma</i>)