

DISCOURSE MARKERS IN CHINESE AND ITALIAN: A CORPUS-DRIVEN COMPARISON OF *RÁNHÒU* 然后 AND *POI*

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The present study is a corpus-driven analysis comparing the Chinese discourse marker (DM) *ránhòu* 然后 (then) and its Italian equivalent *poi*. A total of 351 occurrences of *ránhòu* (192) and *poi* (159) were extracted from a randomly selected sample of the CallFriend and LIP corpora, large collections of natural conversations between Chinese and Italian native speakers, respectively. Each corpus sample approximately consisted of 2.5h conversations. Based on the quantitative analysis of the data supported by qualitative evidence, the study highlights the interactional, metatextual, and cognitive functions of the two DMs, focusing on both differences and similarities. Our findings show that both expressions are significantly more used as DMs than to express temporality; however, they also display some specificities. For instance, *ránhòu* often functions as a turn management device, while *poi* frequently occurs in clusters with other DMs, conveying the speakers' attitude towards the utterance.

Keywords: corpus-driven analysis; Chinese discourse markers; Italian discourse markers; *ránhòu*; *poi*

1. Introduction

Discourse markers (DMs) are a specific type of pragmatic signal which has been the object of several studies in the last decades. In her seminal work, Schiffrin (1987, 40) defines DMs as “linguistic, paralinguistic, or nonverbal elements that signal relations between units of talk by virtue of their syntactic and semantic properties and by virtue of their sequential relations as initial or terminal brackets demarcating discourse units”.

However, considering the number of different theoretical approaches adopted by scholars and the complex nature of DMs themselves, no consensus about their definition has been reached and even the terminology to be adopted has been debated at length (e.g., see Jucker, Ziv 1998). Specifically, in addition to discourse markers (Schiffrin 1987), the most common terminology includes: discourses particles (e.g., Schourup 1985), pragmatic

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particles (e.g., Östman 1981), pragmatic expressions (e.g., Erman 1987), and connectives (e.g., Blakemore 1987, 1990). Another issue related to terminology is that, for instance, “discourse markers” can be used both as a general cover term, as in Schiffrrin (1987), and as a specific term for markers with a discourse-connecting function, as in Fraser (1996), who notoriously proposed “pragmatic markers” as an umbrella term. As for the present paper, following Jucker and Ziv (1998), we will adopt Schiffrrin’s (1987) terminology, i.e., discourse markers, as a general cover term, since, in addition to being used in the most influential literature on Chinese (e.g., Fang 2000; Liu 2011; Miracle 1991) and Italian (e.g., Bazzanella 1995, 2006), it also “seems to be the one with the widest currency and with the least restricted range of application” (Jucker, Ziv 1998, 2). Lastly, compared to pragmatic markers, DMs are more connective in nature (Feng 2019), and this seems in line with the forms addressed in the present study.

Despite the lack of a generally agreed definition, many (if not all) of the above-mentioned studies acknowledge that DMs share some core properties. As summarized in Bazzanella (2006), DMs:

- do not affect the truth conditions of an utterance, and do not add anything to its propositional content;
- are related to the speech situation;
- serve to indicate the mood of a sentence, and to express attitudes and emotions;
- are multifunctional, operating on several levels simultaneously (see also Hölkher 1991; van Dijk 1979).

As for the specific functions of DMs, again, there is little agreement among scholars and many different taxonomies have been proposed within several theoretical frameworks (see, among others, Bazzanella 1995; Fraser 1996; Halliday 1979; Loureda Lamas, Acín Villa 2010; Pons Bordería 2006). For the purpose of the present work, we will provide a brief description of Bazzanella’s (1995) taxonomy, further developed in Bazzanella (2006), which identifies three main macro-functions of DMs: interactional, metatextual, and cognitive. The interactional macro-function consists of those functions which anchor the sentence to the time and place of the conversation and, specifically, to the interlocutors, underlining the interactional dimension of communication. For instance, interactional functions comprise those operations which pertain to turn management, phatic language, agreement/comprehension/explanation requests, etc. The metatextual macro-function is related to the organization of the information in the discourse as well as the linguistic formulation of the text. In particular, metatextual functions concern the structuring of the discourse (e.g., introduction, digression, conclusion); the introduction, change, and closing of topics in the text; and also the strategies to cope with the difficulties of planning an utterance (i.e., reformulation, correction, etc.). Lastly, the cognitive macro-function comprises those functions that have an impact on the semantic content of the utterance. These include procedural markers (related to cognitive processes, e.g., inference), epistemic markers (related to speaker’s subjectivity and commitment) and modulation devices (related to propositional content and illocutionary force).

Turning to the specific subject of this paper, several studies on DMs in both Chinese and Italian have been conducted in the last decades. However, comparability among these studies is often affected in terms of terminological differences, data source, and the granularity of the analyses. Moreover, no study has attempted to conduct a cross-linguistic comparison between *ránhòu* 然后 (then) and its Italian counterpart *poi*. Indeed, comparative research on Chinese and Italian DMs is still at an early stage, the only instance to date consisting in Badan and Romagnoli's (2019) pivotal study on *Nà* 那 (then) and *allora* (then). In order to fill this gap, the present contribution follows a corpus-driven approach to describe and compare the discourse functions of *ránhòu* and *poi*. A total of 351 occurrences of the two DMs were extracted from a 5-hour randomly selected sample of two Chinese and Italian corpora collecting telephone conversations between native speakers. All the occurrences were classified according to their functions and statistical analysis was conducted to highlight both differences and similarities.

2. Literature Review

2.1 DMs in Chinese: the Case of *Ránhòu*

In Chinese, DMs are commonly referred to as *huà yǔ biāo jì* 话语标记. Despite their widespread use, especially in spoken language, researchers' interest on Chinese DMs has only started to increase during the 2000s (Xian, Li 2015). In recent years, a considerable number of studies has been published addressing Chinese DMs both comprehensively (e.g., Liu 2011; Xu 2015) and focusing on a specific set of lexical items (e.g., Dong 2007; Piccinini 2020, 2021).

Feng (2019) proposed a taxonomy of Chinese DMs, identifying two main types: conceptual and non-conceptual. Conceptual DMs are used to encode certain conceptual information, both epistemic and evaluative, and belong to different grammatical categories including adverbs (e.g., *quèshí* 确实, indeed), adjective phrases (e.g., *fēicháng bù xìng* 非常不幸, very unfortunately), noun phrases (e.g., *háowúyíwèn* 毫无疑问, undoubtedly), and finite clauses (e.g., *wǒ xiǎng* 我想, I think). Non-conceptual DMs, on the other hand, are non-compositional, i.e., they do not play part in sentence formation. They can be inter-sentential or sentence-final and include conjunctions (e.g., *kěshì* 可是, but, *suīrán* 虽然, although, *tóngshí* 同时, at the same time) and sentence-final particles (e.g., *le* 了, *ne* 呢, *a* 啊, etc.; for a more detailed account, see Shei 2014).

Based on Feng's (2019) taxonomy, the discourse connective *ránhòu* belongs to non-conceptual DMs. Traditionally described as a temporal conjunction signaling chronological progression between two events (e.g., Lü 1999, 461)², the discourse functions of *ránhòu* have been systematically pointed out by researchers since the late '90s, and indeed, several

² Note that, according to Feng (2019), temporal conjunctions cannot be considered as DMs, because they describe the actual sequence of events or the sequential order of narration and thus are truth-conditional, i.e., can be checked for truth/falsity.

accounts (e.g., Liu 2011; Xu 2015) demonstrated that *ranhou* is one of the most frequent DMs in Modern Chinese.

Among the earliest attempts to analyze the functions of *ranhou* as a DM, Wang (1997) proposed that its core function is to mark continuation, particularly topic succession in discourse. In the same years, Su (1998) analyzed 80 minutes of video-recorded television series and fourteen audio recordings of face-to-face conversations and identified two macro-functions – ideational and interactional. The former function consists in marking sequentiality in terms of temporality, consequence, or logical hierarchy (e.g., in lists). The interactional function, on the other hand, includes signaling condition or concession, marking topic succession, and serving as a verbal filler.

More recently, Wang and Huang (2006) analyzed a corpus of tape-recorded radio programs and proposed two more functions to those identified by Su (1998), namely resumptive opener and additive use. The former consists in resuming an old, digressed topic; the latter marks the connection between successive sentences, linking a series of related events or actions encompassed within a larger discourse frame and establishing cohesion.

Similarly, Wang's (2016) analysis was based on a corpus of videotaped natural conversations among four native speakers and focused on three turn management functions of *ranhou*, namely new turn initiation, turn continuation, and turn extension. According to the author, these functions strongly correlate with prosodic variation, with the pronunciation of *ranhou* becoming more compressed from the first to the third function in terms of duration, gap, pitch, and sound quality. In other words, the tendency for *ranhou* is to merge prosodically with its preceding turn-constructional unit (TCU) in the case of TCU extensions, and to be fully pronounced when used to initiate a new turn.

A more fine-grained description of the discourse and pragmatic functions of *ranhou* is offered in a later study by the same author (Wang 2018). Departing from predefined functional categories, the analysis examined 514 occurrences of *ranhou* from a corpus of two videotaped conversations among close friends. The most frequent macro-functions were labeled by the author as additive, consequential, and topic-shifting use. Addition represents 40% of the DM uses of *ranhou* and consists in introducing additional information and organizing utterances in discourse. Its sub-functions, increments or free constituents, largely correspond to those described by Wang (2016) – turn extension and turn continuation, respectively.

The second function of *ranhou* in terms of frequency was consequential use (30%), which consists of marking the consequence of a prior proposition. As for the third function, Wang (2018) further distinguished between disjunctive, stepwise, and “skip-connecting” topic shift. The first two sub-types differ in the nature of the transition to a new topic, more abrupt for disjunctive topic shift and more gradual for stepwise topic shift. As for “skip-connective”, this function is similar to the “resumptive opener” use described by Wang and Huang (2006).

Lastly, Casentini and Conti (in press) investigated the relationship between *ranhou* use and subject overttness. To do so, they analyzed a corpus of telephone conversations and found nine different discourse functions for *ranhou*, plus an extra category comprising am-

biguous or isolated functions. The authors demonstrated that the subject following DM *ranhou* significantly tends to be overtly expressed, even in cases of co-reference with the subject in the preceding proposition. What is relevant for the present study is that, differently from previous works only focusing on discourse topic (e.g., Wang 2018), Casentini and Conti observed that *ranhou* is often used as a device for sentential topic management, marking topic shift, topic continuity, or topic resumption.

2.2 DMs in Italian: the Case of *Poi*

As in many other languages, Italian DMs, commonly referred to as *segnali discorsivi* (i.e., discourse signals), belong to different word classes. These include conjunctions (e.g., *ma*, but), adverbs (e.g., *bene*, well), and verbs (e.g., *sai*, you know), and they have been extensively investigated in the literature (see, among others, Andorno 2007a, 2007b; Bazzanella 1995, 2006; Bonvino et al. 2008; Fiorentini, Sansò 2017; Waltereit 2006).

Following Bazzanella's (1995, 2006) taxonomy described in Section 1, Italian DMs can perform interactional functions, such as turn taking/holding (e.g., *dunque*, so) or pause filling (e.g., *diciamo*, let's say); metatextual functions, like proposing a shift in the conversation (e.g., *poi*, then) or signalling the end of a topic (e.g., *infine*, finally); and cognitive functions, including attenuating the authority of the speaker (e.g., *secondo me*, in my opinion) or reducing the accuracy of the utterance (e.g., *in qualche modo*, in some way).

Moreover, as argued in Bazzanella (1995, 2006), the same DM can perform different functions either *in absentia*, that is depending on the linguistic and extra-linguistic context, or *in presentia*, namely performing different functions at the same time. Indeed, as shown in De Cristofaro and Badan (2019), Italian DMs can occur either at the beginning, in the middle, or at the end of the clause, and sometimes, the specific pragmatic function can be determined by its positions in the clause (i.e., *in absentia*). This can be seen in the Examples 1 and 2, adapted from De Cristofaro and Badan (2019), showing the behavior of the adverbial DM *allora*:

- (1) *allora l'arrivo è un punto sotto la stella più grande*
then the arrival is a point under the bigger star
- (2) *non può esse', son diverse le stelle allora*
(it) cannot be, they are different the stars then

As noted by the authors “the sentence-initial *allora* in (1) has the function of opening the turn in the dialogical exchange, while the sentence-final *allora* in (2) has the double function of closing the turn and expressing a logical inference made by the speaker” (De Cristofaro, Badan 2019, 97).

Moving on to the issue at hand, *poi* is an adverb which signals the temporal localization of the event described by the relevant clause, indicating that it is subsequent to the speech time or to a previously mentioned event. To date, only a few studies have addressed in detail the use of *poi* as a DM. For instance, the study by Coniglio (2008) focused on several Italian and German lexical items, including *poi*. The author proposed an analysis of *poi* as a

modal particle which can be used to signal the speaker's attitude such as inability to answer, anger, concern, interest, etc., or else to mitigate the strength of an assertion (i.e., functions belonging to the cognitive macro-function mentioned in Section 1). Manzini (2015) also discussed some of the discourse properties of *poi* and proposed that it is used to invoke a common ground shared by the speaker and the listener.

Apart from these attempts, Cognola and Cruschina's (2021) generative analysis of *poi* is, to the best of our knowledge, the only study specifically focused on this DM. Within their mainly syntactic account, the authors identify the following functions of *poi* (Examples 3-7, as well as the definitions, are taken from Cognola, Cruschina 2021):

a. Adverbial > indicating posteriority with respect to the speech time or a previous event:

- (3) *I risultati li vedremo poi a primavera*
We will see the results later in the Spring

b. Demarcation > characterizing the progression and the structure of the argument, introducing a new topic or, more commonly, a sub-argument:

- (4) *Addirittura non ho nemmeno mai preso la bici che poi³ è una cosa stranissima a Bologna*
I haven't ever even taken the bike, which is a very strange thing in Bologna

c. Conclusion > closing off a whole discourse chunk, indicating the conclusion with respect to a previous discourse unit which is presented as a premise to the current statement:

- (5) *È partito poi?*
Did he finally leave?

d. Contrast > expressing a contrastive value, often along with a sense of aversion, dissent, or counter-expectedness:

- (6) *Non siamo poi così lontani dalla verità*
We are not so far from the truth, after all

e. Presuppositional > providing (7a) or requesting (7b) a confirmation of an expectation or a presupposition:

- (7) a. *Il crudo poi l'ho preso alla fine*
The Parma ham, I took it in the end
b. *L'ha poi scritto quel romanzo?*
Did he eventually write that novel?

³ It is interesting to note that in this particular example, *poi* occurs together with the relativizer *che*, forming a complex discourse marker. As discussed in Sansò (2022), *che poi* is used monologically as a "topic orientation marker" in modern Italian, a function which can be said to be included in Cognola and Cruschina's (2021) demarcation function.

3. Method

3.1 Research Questions

As seen in Section 2 above, *ranhou* and *poi* show evident overlappings both in their lexical meaning and their discourse functions. However, as mentioned in the introduction, a systematic analysis comparing their use in the two languages has never been conducted. Therefore, the present paper aims to answer the following research questions:

1. What are the functions of *ranhou* and *poi* in authentic conversations between native speakers? Do the functions identified in our corpus analysis correspond to those proposed in the literature?
2. What are the main differences and similarities between the use of *ranhou* and *poi*?

3.2 Data Collection and Sample Composition

In order to answer our research questions, we collected data from two comparable corpora of natural conversations between native speakers of Chinese and Italian. Specifically, for Chinese, we randomly selected 7 conversations from the CallFriend Mandarin Chinese-Mainland corpus (Canavan, Zipperlen, Bartlett 2018) for a total of approximately 2.5 hours of conversation. This corpus consists of a series of unscripted telephone conversations between native speakers of the Mandarin Chinese variety spoken in Mainland China.

As for Italian, we randomly selected 11 telephone conversations from the LIP corpus (De Mauro et al. 1993), for a total of approximately 2.5 hours of conversation, so as to guarantee comparability with the Chinese sample in terms of both duration and diaphasic situation. Moreover, the LIP corpus includes data from 4 major Italian cities (Florence, Milan, Naples, and Rome), in order to obtain a high degree of representativeness. Hence, the selected 2.5 hours of conversations were divided equally among the 4 cities (approximately 40 minutes each), so as to maintain the original diatopic balance of the LIP corpus.

The analysis of the two samples was conducted using AntConc (Anthony 2019), a free-ware corpus analysis toolkit for concordancing and text analysis. All the occurrences were coded and classified according to their function. Finally, results were statistically analyzed in order to highlight significant differences and similarities between *ranhou* and *poi*.

3.3 Analysis

The analysis followed an inductive (exploratory) corpus-driven approach. First, we retrieved all the occurrences of *ranhou* and *poi* in the samples and personally annotated them according to the following three variables: (i) temporal or DM use; (ii) discourse/pragmatic functions; (iii) discourse/pragmatic sub-functions. Ambiguous or non-analyzable cases (e.g., when the speaker is interrupted) were all grouped under the label “other”.

Once the first round of annotation was concluded, we outlined a coding scheme describing each function and sub-function, as well as the corresponding labels. Following, an independent rater conducted a second round of annotation, labeling the data based on the coding scheme we provided. Interrater agreement was assessed by means of Cohen’s Kappa (κ), which is commonly used in corpus linguistics for nominal variables. The results for

each function and sub-function are reported in Table 1. Overall, values of κ suggest high to perfect agreement between the raters ($p < .001$), with no systematic pattern of disagreement. Thus, considering the nature of judgment variables, our coding scheme was deemed reliable in identifying the relevant functions of the two DMs.

Table 1 - Values of κ for interrater agreement

		κ	p	z
<i>Ranhou</i>	Temporal/DM	.83	.00	11.6
	DM Functions	1.00	.00	18.5
	DM Sub-functions	.99	.00	29.8
<i>Poi</i>	Temporal/DM	.94	.00	14.0
	DM Functions	.86	.00	20.8
	DM Sub-functions	.84	.00	20.7

Significance testing for the comparison of *ranhou* and *poi* was conducted using the chi-square (χ^2) test or the log-likelihood ratio test (G -test) when the data did not meet the assumptions for the chi-square (e.g., expected frequencies being smaller than 5). For 2x2 chi-square tests, we also reported Cramer's V and probability ratios (PR) as overall and individual measures of effect size, respectively⁴. All statistical tests were conducted in R (R Core Team 2020) and its integrated development environment RStudio (RStudio Team 2021).

4. Results

4.1 Functions of *Ranhou*

In our data, *ranhou* was more used as a DM than a conjunction expressing temporality (Table 2). This difference is significant at the .001 level, as demonstrated by the results of the univariate chi-square test: $\chi^2(1) = 77.52, p = .0001$.

Table 2 - Occurrences of *ranhou*

Use	Frequency		χ^2
	Observed (%)	Expected	
DM	157 (81.77%)	96	38.76
Temporal	35 (18.23%)	96	38.76
Total	192 (100%)		77.52

⁴ For the interpretation of V and PR values, see Brezina (2018, 115-116).

Example 8⁵ constitutes an instance of temporal use, corresponding to the traditional use of *ranhou* as a semantic connective. In this case, *ranhou* is clearly used to mark “an interclausal temporal relationship between adjacent clauses” (Wang, Huang 2006, 995), as the events “buying (a computer)” and “start studying it” occur in chronological succession. This is further confirmed by the use of the adverbial *xiān* 先 (first) in the first clause.

- (8) 你先家里买一个，然后慢慢，慢慢开始学就好了
Nǐ xiān jiā-lǐ mǎi yí-gè, ránhòu mànman, mànman
 2SG first house-in buy one-CL then slowly slowly
kāishǐ xué jiù hǎo le
 start study than good FP
 First you buy one for your house, then slowly, slowly start studying it and that's it

As for DM uses, they are reported in Table 3 in frequency order. As shown, the discourse functions of *ranhou* are related to discourse, topic, and turn management. The first and second category roughly correspond to the metatextual function of discourse markers described in Bazzanella (1995), whereas turn management belongs to the interactional function.

Table 3 - *Discourse functions on ranhou*

<i>Function</i>	<i>N (%)</i>	<i>Sub-function</i>	<i>N</i>
Discourse management	60 (38.2%)	Free constituents	48
		Consequential use	5
		Listing use	4
		Increments	3
		Topic management	48 (30.6%)
Topic management	48 (30.6%)	Continuity	15
		Resumption	8
		Development	2
		Turn management	45 (28.7%)
Turn management	45 (28.7%)	Verbal filler	21
		Trail-off	2
		Turn taking	1
Other	4 (2.5%)		
Tot.	157 (100%)		157 (100%)

The most frequent function is the one we labeled as “discourse management”. With this term, we mainly refer to Wang’s (2018) “additive use” for *ranhou*, and more in general to Blakemore’s (1987)’s “discourse connectives”. Overall, discourse management consists in the

⁵ In Chinese examples, interlinear glosses follow the Leipzig Glossing Rules (<https://www.eva.mpg.de/lingua/resources/glossing-rules.php>, last accessed May 22, 2022), adapted to Chinese based on Li and Thompson (1981). The acronym FP stands for “final particle”, whereas NVV stands for “non-verbal vocalization”.

use of *ranhou* as a cohesive device, marking the connection between successive textual units. In our analysis, we further divided this function into four sub-functions, reflecting different relationships between the units of talk connected by *ranhou*. The most frequent is “free constituents”, defined by Wang (2018) as additions which bear no grammatical relationship with the prior unit, with the purpose of introducing additional information and organizing ideas in discourse time. In Example 9, for instance, there is clearly no temporal connection between the events “being by the lake” and “going with other people”. Here *ranhou* is simply used as a cohesive device to connect pieces of information related to the same event.

- (9) A: 你们还经常去钓鱼?
Nǐmen hái jīngcháng qù diàoyú?
 2PL still often go fish
 Do you still go fishing often?
- B: 对
Duì
 Right
 Yes
- A: 去哪儿钓鱼呢?
Qù nǎr diàoyú ne?
 Go where fish FP
 And where do you go fishing?
- B: 他那就在附近一个湖, 然后就跟别人去
Tā nà jiù zài fùjìn yí-gè hú, ránhòu jiù gēn
 3SG.M that just at nearby one-CL lake then just with
biérén qù
 other-people go
 His place is just by a lake nearby, then [we] just go with other people

In addition to these two sub-types, the “discourse management” group includes three more sub-functions with a limited frequency of occurrence – consequential use, increments, and listing use. Consequential use consists in marking the consequence of a prior proposition. In Example 10, consequential *ranhou* is reinforced by *jiù* 就 (just), another consequential marker. According to Wang (2018), this is a typical feature of this function.

- (10) 大家如果考得不好, 然后它就要乘多少
Dàjiā rúguǒ kǎo-de bù hǎo, ránhòu tā jiù yào chéng
 Everyone if do.exam-CSC NEG well then 3SG.N just will multiply
duōshǎo
 how.much
 If everyone doesn't do well at the exam, then it will just multiply accordingly

As a marker for listing use, *ranhou* is inserted between subsequent units which overall constitute different items of the same list (Wang, Huang 2006). In Example 11, the speaker is listing the countries that cannot participate in the US lottery and uses *ranhou* to introduce the last element (*Mòxīgē* 墨西哥, Mexico).

- (11) 有几个国家不行嘛，中国、印度，然后，墨西哥
Yǒu jǐ-gè guójiā bù xíng ma, Zhōngguó, Yìndù, ránhòu, Mòxīgē
 There.be some-CL country NEG go.well FP China
 India then Mexico
 There are some countries that can't participate, China, India, and then Mexico.

Lastly, the least frequent sub-function for discourse management is that of introducing increments. Differently from free constituents, increments mark grammatical extensions of prior units of talk (Wang 2018; but see Schegloff 1996). In Example 12, the sentence would be ungrammatical without the adjunction introduced by *ranhou*. This is because the two parts connected by *ranhou* are syntactically related.

- (12) 他说因为他从新加坡嘛，然后就是到 [美国]
Tā shuō yīnwèi tā cóng Xīnjiāpō ma, ránhòu jiù shì dào [Měiguó]
 3.SG.M say because 3.SG.M from Singapore FP then just
 be arrive USA
 He said [that's] because, from Singapore, then he just arrived to the US

As a device for topic management, *ranhou* can be used to mark topic shift, resumption, continuity, and development. Note that for this function, we considered both sentential and discourse topics (for a definition, see Reinhart 1981 and Ochs Keenan, Schieffelin 1976, respectively). However, with 39 cases out of 48 (81%), sentential topic management is clearly more representative; thus, due to space constraints, the following examples will be limited to this category.

The two most frequent sub-functions for topic management are topic shift and topic continuity. Example 13 shows an instance of topic shift, with *ranhou* marking the transition from a prior (*tīng* 厅, hall) to another sentential topic (*chúfáng wòshì* 厨房卧室, kitchen and bedroom). By contrast, topic continuity consists in maintaining the same topic throughout different units of talk (*wǒ* 我, I, in Example 14).

- (13) 所以很大一个厅，然后厨房卧室都啊
Suǒyǐ hěn dà yí-gè tīng, ránhòu chúfáng wòshì dōu a
 Thus very big one-CL hall then kitchen bedroom all FP
 So [there is] a very big hall, and then the kitchen and bedrooms [are] all ah
- (14) 就觉着特累哈，然后我，那天就在想 [...]
Jiù juézhè tè lèi ha, ránhòu wǒ, nà tiān jiù zài xiǎng [...]
 Just feel particularly tired NVV then 1SG that day just
 PROG think
 [I] was extremely tired, then I, that day I was just thinking [...]

As for the two less represented sub-functions in this category, topic resumption consists in resuming a temporarily discarded topic (*nà ge dìfang* 那个地方, that place, in Example 15), whereas topic development indicates uses in which *ranhou* marks the successive development of a topic introduced as a focus in the preceding proposition (*tīnglì bùfēn* 听力部分, listening part, in Example 16).

- (15) A: 那个地方比 Akron 要小
Nà-gè dìfang bǐ Akron yào xiǎo
 That-CL place than more small
 That place is smaller than Akron
- B: 噢, 比-[他]不在艾克龙
Ō, bǐ- [tā] bú zài Àikèlóng
 NNV than 3SG.M NEG be.in Akron
 Oh, [it's smaller] than- he's not in Akron
- A: [他]不在 Akron
[Tā] bú zài Akron
 3SG.M NEG be.in Akron
 [He] is not in Akron
 然后那个地方比 Akron 还要小一点儿
Ránhòu nà-gè dìfang bǐ Akron hái yào xiǎo yídiǎnr
 Then that-CL place than still more small a-little
 Then that place is a little smaller than Akron
- (16) A: 那种是剩下的听力部分
Nà-zhǒng shì shèngxià-de tīnglì bùfēn
 That-type be remaining-NOM listening part
 That type is the remaining listening part
- B: 啊
Ā
 NVV
 Uh
- A: 然后听力部分我感觉好像就是 [...]
Ránhòu tīnglì bùfēn wǒ gǎnjué hǎoxiàng jiù shì [...]
 Then listening part 1SG feel seem just be
 Then the listening part I feel it's like [...]

The last function of *ranhou* is turn management, which consists of the encodings selected by the speakers to appropriately synchronize turns (Condon, Čech 2010; Degand, van Bergen 2018). In this group, the most represented sub-functions are verbal filling and turn holding. In the former case, *ranhou* is used as a pause marker for lexical retrieval or local syntactic planning, thus reflecting conceptual planning operations. This is clearly shown in Example 17, where the speaker is obviously taking time to plan the subsequent talk, as also suggested by the numerous hesitations as well as the presence of other verbal filling devices (e.g., *nà ge* 那个, lit., that; see Huang 1999).

- (17) 然后呢, 那个, 那什么 [...]
Ránhòu ne, nà-ge, nà shénme [...]
 Then FP that-CL that what
 Then, that, that what [...]

As for turn holding, this sub-function consists in signaling the speakers' intention to maintain the turn, for example while the interlocutor is trying to cut in (Example 18; see Tsai, Chu 2015).

- (18) A: 他只有一岁多一些吧
Tā zhǐ yǒu yí suì duō yixiē ba
 3SG.M only have one year more a.little FP
 He's just one year or so, doesn't he
 B: 为啥呢? 嗯
Wèishá ne? Ēn
 Why FP NVV
 Why? Uh
 A: 然后, 吃什么 [...]
Ránhòu, chī shénme [...]
 Then eat what
 Then, whatever he eats [...]

Lastly, this group also includes the two scarcely represented sub-functions coded as “turn taking” and “trail-off”. While turn taking is self-explaining (see Example 19), trail-off marks the closure of a turn, inviting the interlocutor's response (Example 20). This type is often characterized by “prosodical independence, loudness diminuendo, and/or durational lengthening” (Wang 2018, 22; see also Walker 2012).

- (19) A: [...] 那公司还要他
 [...] *nà gōngsī hái yào tā*
 that company still want 3SG.M
 [...] that company still wanted [to hire] him
 B: 然后人家又要他了?
Ránhòu rénjiā yòu yào tā le?
 Then 3SG again want 3SG CRS
 And they hired him?
- (20) A: 然后明天想去那儿, 去海滩, 然后.....
Ránhòu míngtiān xiǎng qù nàr, qù hǎitān, ránhòu...
 Then tomorrow want go there go sea-beach then
 Then tomorrow he wants to go there, to the beach, then...
 B: 去海滩
Qù hǎitān
 Go sea-beach
 Go to the beach

4.2 Functions of *Poi*

Turning to *poi*, our data show that, like *ranhou*, it is mainly used as a DM rather than a temporal adverb (Table 4). This difference is significant at the .001 level, as demonstrated by the results of the univariate chi-square test: $\chi^2(1) = 21.89, p = .0001$.

Table 4 - Occurrences of *poi*

Use	Frequency		χ^2
	Observed (%)	Expected	
DM	109 (68.55%)	79.5	10.95
Temporal	50 (31.45%)	79.5	10.95
Total	159 (100%)		21.89

An example of temporal use is provided in 21, which shows the traditional adverbial function of *poi*. In this case, *poi* is clearly used to “indicate posteriority with respect to a previous event” (Cognola, Cruschina 2021, 3), since the event “seeing if we need more” is placed at a later time than the event “taking the included cartridge”. This is further confirmed by the presence of *ora* (now) in the first clause.

- (21) *Prendiamo ora la cartuccia di serie, poi vediamo se ce ne servono altre*
 For now we take the included cartridge, then we will see if we need more

As for the DM uses, they are reported in Table 5 in frequency order. As shown, the discourse functions of *poi*, similarly to *ranhou*, are related to discourse, topic, and turn management (roughly corresponding to the metatextual and interactional macro-function described in Bazzanella 1995; see Section 4.1). However, our data show that *poi* presents an additional function related to stance management, that is the way in which speakers express their personal attitude and commitment towards propositions (see Gray, Biber 2015. For more details, see Section 5).

Table 5 - Discourse functions of *poi*

<i>Function</i>	<i>N (%)</i>	<i>Sub-function</i>	<i>N</i>
Discourse management	50 (45.5%)	Free constituents	31
		Listing use	12
		Consequential use	7
Stance management	26 (23.6)		
Topic management	21 (19.1%)	Shift	10
		Resumption	10
		Continuity	1
Turn management	12 (10.9%)	Verbal filler	10
		Turn taking	2
Other	1 (0.9%)		
Tot.	110 (100%)		110 (100%)

As observed for *ranhou*, the most frequent function is “discourse management”, which consists in the use of *poi* as a means to structure the discourse, i.e., marking the connection between successive textual units. As mentioned in Section 4.1, we further divided this function into four sub-functions; however, in our data, *poi* only performs three of them, not displaying any use as an increment introducer. Again, similarly to the case of *ranhou*, the most frequent discourse management sub-function is “free constituents”. Example 22, for instance, shows a case in which *poi* is used as a cohesive device without establishing any temporal succession between the events “telling me about her diet” and “swallowing”.

- (22) [...] *lei continuava a dirmi a raccontarmi della sua dieta [...] e poi continuava a deglutire guardando il mio panino*
 [...] she kept saying to me telling me about her diet [...] and kept swallowing looking at my sandwich

As for the listing use function, example 23 show a case in which *poi* is used to introduce subsequent units constituting different items of the same list:

- (23) *Dunque è venuta [nome] una bionda [...] poi ce n'era ce n'era un'altra con un altro scialle rosso [...] e poi ci stava una in mezzo con un vestito nero*
 So [name] came, a blonde [...] then there was there was another one with a red shawl [...] and then there was one in the middle with a black dress

The least frequent discourse management sub-function of *poi* is “consequential use”. In Example 24, *poi* marks the consequence of “not asking herself [those questions] beforehand”, that is, “repeat like a parrot”:

- (24) *Però se non se le pone prima [quelle domande] poi li gliele dice a pappagallo*
 But if she does not ask herself [those questions] beforehand, then, there, she will repeat like a parrot

The second most frequent function of *poi* is that of stance management. Example 25 shows a case in which *poi* conveys the uncertainty of the speaker toward the proposition “they knew her for some other reason”. Indeed, this attitude is further confirmed by the use of “I don’t know” and by the following dubitative clause.

- (25) [...] *si salutarono eccetera, poi non lo so si 'a conoscevano diversamente*
 [...] they greeted each other and so on, but then I don’t know if they knew her for some other reason

Interestingly, when used to express speakers’ attitude, *poi* can co-occur with other DMs, forming a cluster in which all the elements contribute to strengthen the overall meaning. In Example 26, for instance, *poi* is used alongside *perché* (because), *dico* (I mean, lit., I say), *veramente* (really), *ma* (but), *che* (what). In this case, the overall meaning of the cluster is to convey the speaker’s indignation toward the issue at hand.

- (26) *Comunque io non voglio manco entrare in quello che gli passa per la mente, perché poi dico, veramente, macché stiamo a curare...*
 Anyway, I don't even want to get involved with what goes through their mind, because then, I mean, really, are we to treat...

Moving on to topic management, *poi* can be used to indicate a topic shift (Example 27), the resumption of a previous topic (the things speaker A wants to say “to these people” in Example 28) or, less frequently, to mark topic continuity (“Fridays” in Example 29). It is interesting to notice that, differently from *ranhou*, our data do not show any instance of *poi* marking topic development.

- (27) A: *È diverso il discorso per noi da un punto di vista dei costi interni chiaro?*
 From the point of view of internal costs, for us it is different, am I clear?
 B: *Mi rendo conto perfettamente e ci va bene lo stesso... e poi le volevo dire che abbiamo anche accettato la proposta di sottoscrivere subito il contratto*
 I completely understand and for us it is ok all the same... and then I wanted to tell you that we also accepted your proposal of signing the contract right away
- (28) A: *Io a questi gli devo dire delle cose che non vanno bene. Per esempio che loro non sanno distinguere tra obiettivi, metodi e strumenti. È una cosa un po' antipatica andare a dire questo a degli insegnanti*
 To these people, I have to point out some things which aren't going well. For example, that they are not able to distinguish between goals, methods, and tools. It is an unpleasant thing to say that to some teachers
 B: *No invece secondo me sono le cose di cui c'è gran bisogno*
 No, in my opinion these are the things which are really needed
 A: *Però nel momento in cui le dico queste s'offendono, come è successo altre volte quando io ho detto cose di questo genere. Poi gli devo dire che i quaderni dei corsisti, l'organizzazione del materiale della gente che va a scuola, è una cosa fondamentale.*
 But when I say these things, they get offended, just as it happened some other times when I said something similar. Then I have to tell them that students' notebooks, the organization of students' materials, is essential
- (29) A: *E poi ci vediamo il venerdì*
 And then we meet on Friday
 B: *Il venerdì quindici*
 Friday the fifteenth
 A: *Sì*
 Yes
 B: *Se poi il venerdì [...] otto, c'abbiamo dieci minuti per parlare di [nome] non sarebbe male.*
 Then if Friday [...] the eight, we have ten minutes to talk about [name], it wouldn't be that bad.

Finally, the least frequent function of *poi* is turn management. Differently from *ranhou*, our data only shows two sub-functions with which *poi* contributes to the synchronization of conversational turns. These are verbal filling (Example 30) and turn taking (Example 31).

- (30) *E poi, niente, praticamente, ma non non è quello il punto.*
And then, nothing, essentially, but that is not the point.
- (31) A: *Ah no ma allora non la tengo presente.*
Ah no, then I don't recall her
B: *E poi...*
And then...
A: *Va be'*
Whatever
B: *...nella piscina abbiamo incontrato nu- 'n amico di [nome]*
...in the pool we met an- a friend of [name]

4.3 Statistical Comparison

In this section, we will report the results of the statistical analyses comparing the functions of the considered DMs in the two languages. As shown in Sections 4.1 and 4.2, both *ranhou* and *poi* prevalently occur as DMs. Still, the results of the chi-square test assessing the relationship between language (Italian and Chinese) and use (temporal/DM) are moderately significant ($p < .01$): $\chi^2(1) = 8.28$, $p = .004$. This is because, as also suggested by the PR values reported in Table 6, *ranhou* is 1.19 times more likely to appear as a DM than *poi*, whereas *poi* is 1.73 times more likely to express temporality than *ranhou*. However, the effect size is small ($V = .15$), thus the difference detected by the chi-square test is negligible.

Table 6 - *Temporal and DM use of ranhou and poi*

Type		Use		Total
		DM	Temporal	
<i>Ranhou</i>	Observed	157	35	192
	Expected	145.51	46.50	
	χ^2	0.91	3.62	
	PR [95% CI]	1.19 [1.05, 1.35]	0.58 [0.397, 0.845]	
<i>Poi</i>	Observed	109	50	159
	Expected	120.50	38.40	
	χ^2	1.10	3.50	
	PR [95% CI]	0.84 [0.74, 0.95]	1.73 [1.18, 2.52]	
Total		266	85	351

As for the discourse functions, the overall results of the *G*-test are highly significant ($p < .001$): $G(3) = 60.73$, $p = .0001$. In addition to *poi*'s use as a marker for stance man-

agement, which is completely unattested for *ranhou*, the data in Table 7 show that the main difference concerns turn management, which is clearly higher for *ranhou* in terms of frequency. A considerable difference can also be noted for topic management, with *poi* presenting less than half of the occurrences of *ranhou* for this function.

Table 7 - Comparison for discourse functions

Type		Function				Total
		<i>DisM</i>	<i>TopM</i>	<i>TurnM</i>	<i>SM</i>	
<i>Ranhou</i>	Observed	60	48	45	0	153
	Expected	64.24	40.29	33.29	15.18	
<i>Poi</i>	Observed	50	21	12	26	109
	Expected	45.76	28.71	23.71	10.82	
Total		110	69	57	26	262

Following, we will compare the occurrences of *ranhou* and *poi* separately for each function. Overall, the difference for discourse management is moderately significant ($p < .01$): $G(3) = 11.46$, $p = .009$. As shown in Table 8, *poi* is more frequently used as a listing device; by contrast, *ranhou* is more frequently used to introduce increments, with no instances of *poi* for this sub-function. *Ranhou* also tends to be more frequently used to introduce free constituents, whereas for consequential use the numbers in the two languages are very similar.

Table 8 - Comparison for discourse management

Type		Sub-function				Total
		<i>Free constituent</i>	<i>Consequential use</i>	<i>Listing use</i>	<i>Increments</i>	
<i>Ranhou</i>	Observed	48	5	4	3	60
	Expected	43.09	6.55	8.73	1.62	
<i>Poi</i>	Observed	31	7	12	0	50
	Expected	35.91	5.46	7.27	1.38	
Total		79	12	16	3	110

The difference for topic management is also moderately significant ($p < .01$): $G(3) = 12.1$, $p = .007$. Compared to *poi*, *ranhou* is more frequently used as a marker for topic continuity, topic development, and topic shift. The observed frequencies for topic resumption are very close; however, in the case of *ranhou*, the observed frequency is lower than the expected, while in the case of *poi* the former nearly doubles the latter (Table 9).

Table 9 - Comparison for topic management

Type		Sub-function				Total
		Shift	Continuity	Resumption	Development	
<i>Ranhou</i>	Observed	23	15	8	2	48
	Expected	22.96	11.13	12.52	1.39	
<i>Poi</i>	Observed	10	1	10	0	21
	Expected	10.04	4.87	5.48	0.61	
Total		33	16	18	2	69

As mentioned earlier, topic management can involve both sentential and discourse topics. A chi-square test assessing the relationship between the two DMs and topic type resulted as highly significant, with a large effect size: $\chi^2 (1) = 29.94, p = .0001, V = .66$. The data reported in Table 10 confirm that *ranhou* is 8.13 times more frequently associated to sentential topics, whereas *poi* is mainly used to manage discourse topics (PR = 4.8).

Table 10 - Discourse vs sentential topics

Type		Topic type		Total
		Sentential	Discourse	
<i>Ranhou</i>	Observed	39	9	48
	Expected	28.94	19.06	
	χ^2	3.50	5.31	
	PR [95% CI]	8.13 [2.17, 30.5]	0.21 [0.11, 0.38]	
<i>Poi</i>	Observed	2	18	20
	Expected	12.06	7.94	
	χ^2	8.39	12.75	
	PR [95% CI]	0.12 [0.03, 0.46]	4.8 [2.62, 8.81]	
Total		41	27	68

Lastly, the results of the *G*-test comparing the use of the two DMs as turn management devices are also highly significant ($p < .001$): $G (3) = 15.87, p = .001$. The data in Table 11 are a further confirmation of what emerged from the comparison of the main functions (Table 7), with *ranhou* surpassing *poi* for all the sub-functions in this category, particularly turn holding and verbal filling.

Table 11 - Comparison for turn management

Type		Sub-function				Total
		Holding	Filler	Trail-off	Turn-taking	
Ranhou	Observed	21	21	2	1	45
	Expected	16.58	24.47	1.58	2.39	
Poi	Observed	0	10	0	2	12
	Expected	4.42	6.53	0.42	0.63	
Total		21	31	2	3	57

5. Discussion

The analysis conducted in Section 4 described the functions of *ranhou* and *poi* as emerged from our sample of natural conversations. To answer RQ1, our results generally confirm previous contributions, while at the same time providing further evidence supported by systematic quantitative and qualitative analysis. Most importantly, in clear contrast with traditional accounts, our study demonstrated that both items are significantly more used as DMs than to express temporality.

Concerning *ranhou*, empirical evidence demonstrated that its most frequent function is that of marking the relation between different discourse units. Among the sub-functions in this category, the most represented in terms of number of occurrences is that of introducing additional information and organizing ideas in discourse time (i.e., free constituents), whereas other sub-functions are less prominent.

The other two functions of *ranhou* are equally represented in our sample. Although less frequent than discourse management, both topic and turn management still possess an undoubted weight in the use of *ranhou* as a DM. For the former type, the most frequent sub-functions were those of marking sentential topic shift or continuity, whereas for the latter type the most frequent functions were verbal filling and turn holding. All the remaining sub-functions in both groups only presented few instances.

Similarly to *ranhou*, *poi* is also more used for discourse management, particularly to introduce additional information in the form of free constituents. A rather relevant function which was not attested for *ranhou* is that of serving as a stance management device, displaying a cognitive macro-function of conveying the speaker's attitudes, emotions, evaluations, level of commitment, and the illocutionary force of the utterance. The ability of DMs to function as markers for stance management has been investigated at length in the literature (see, among others, Coniglio's 2008 "modal particles" and Gray, Biber's 2015 "stance markers"; see also Sakita 2013 and Closs Traugott 2020). Indeed, Jucker and Ziv (1998) include "attitude markers" as one of the functions associated with DMs; similarly, Bazzanella (2006) also proposed that DMs with a cognitive macro-function may express speaker subjectivity and commitment (see Section 1). Hence, our findings provide further

evidence to support the view that expressing speakers' attitude and commitment is a common function of DMs, and specifically of *poi*.

Similar to stance management is also the percentage of occurrences for turn management. In this category, the most frequent sub-functions are related to (discourse) topic shift or resumption, whereas topic continuity or development are either scarce or completely absent. Lastly, turn management is the least represented function for *poi*, and it mainly consists of marking a pause for conceptual planning while maintaining the speakers' turn open.

Let us now turn to RQ2 and discuss the differences and similarities between *ranhou* and *poi*. Overall, the former resulted as slightly more frequent in our sample, with 192 occurrences compared to 159 occurrences of *poi* in the approximately 2.5 hours of conversation analyzed for each language. In addition, while both items are statistically less used in their lexical meaning of expressing temporality, *ranhou* shows a stronger tendency to function as a DM than *poi*.

The differences in their usage are even more prominent when looking at their specific DM functions. Indeed, while on the one hand both expressions present functions related to the management of discourse, topics, and conversational turns (with similar relative frequencies), on the other hand *poi* is also used as a stance marking device, a function which *ranhou* fails to display, at least in our data. At the same time, however, *ranhou* presents a more versatile array of discourse usages, performing a wider number of sub-functions. By contrast, *poi* displays a more restricted usage, lacking many of the sub-functions possessed by *ranhou*.

Finally, a very relevant difference concerns the possibility for the two items to co-occur with other elements. Apparently, *ranhou* is only able to combine with one other element at a time, either a verbal filler (see Example 17) or a marker expressing consequentiality (see Example 10) or continuation (e.g., *ne*; see Wang 2016, 2018). By contrast, *poi* often appears with a varying number of other DMs, ranging from one to even four or five (see Example 26). Together, these elements form clusters whose overall meaning is reciprocally determined and strengthened. In this respect, it is interesting to notice that, when forming a cluster, DMs do not lose their original core meaning; instead, as argued in Bazzanella (2015), this core meaning is enriched with nuances which are both contextually and co-textually dependent.

These results are particularly relevant not only for descriptive purposes, but also and more importantly for their pedagogical implications. Based on empirical evidence, teaching materials should integrate the traditional description of these two items by including their discourse and pragmatic functions, as these are clearly more represented in natural speech. Still, the difficulties in the acquisition of DMs by second language (L2) learners are well attested in the literature (for a review on L2 Italian, see Nuzzo, Santoro 2017). The challenge of DM acquisition is particularly daunting considering that these elements do not contribute to the propositional meaning of the utterance, and that they display a high degree of polyfunctionality, as the present study well demonstrated. As for L2 Chinese, the available data confirm that the acquisition of DMs correlates with proficiency (Ji 2016);

however, most studies only involved a limited number of informants (for a review, see Badan, Romagnoli 2019). Some authors (e.g., Kan, Hou 2013) suggest starting from the most frequent DMs, highlighting the differences between written and spoken language, and using authentic materials in order to raise learners' awareness on the pervasiveness and polyfunctionality of DMs. In this context, comparative studies such as the present one and that by Badan and Romagnoli (2019) can help practitioners identify the similarities and discrepancies between learners' L1 and L2 and ultimately facilitate the acquisitional process. We thus hope that our contribution might constitute a starting point to further investigate the acquisition of DMs by both Chinese learners of L2 Italian and Italian learners of L2 Chinese.

6. Conclusions

The present paper compared the temporal and discourse uses of the Chinese and Italian DMs *ranhou* and *poi*, drawing on data extracted from corpora of natural telephone conversations in the two languages. The results showed that the two DMs share most of the functions, the differences mainly concerning their relative frequencies. Specifically, *ranhou* is significantly more used as a turn managing device and to mark shift, continuity, resumption, and development of sentential topics. *Poi*, on the other hand, is often used as a device for stance management, also in combination with other elements.

In support of our claims, we provided both statistical and qualitative evidence. Still, the limited size of the analyzed data certainly affected the results of our study. Future research might expand the investigation not only to a larger scale of corpus data, but also to include different registers and genres, in order to obtain sounder results and describe the similarities and differences detected in this preliminary account more extensively.

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