Managing the Impact of Aphasia on Mandarin Speakers in Interaction: A Comparison of Healthcare Professionals and Significant Others

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Abstract

Over the past 25 years, Conversation Analysis (CA) has been extensively applied to the study of aphasia, particularly in English-speaking and European contexts. While these studies have provided valuable insights into how aphasia impacts everyday communication, several areas remain underexplored or debated. These include severe aphasia, Wernicke's aphasia, the presence of negative emotions in test question sequences, and particularly the differences between healthcare professionals (HCPs) and significant others (SOs) in managing aphasia. Moreover, research on aphasia in non-European languages, particularly Mandarin, is scarce. Existing studies on Mandarin have mainly focused on linguistic aspects, such as language production and comprehension, often isolated from social contexts, with little attention to the role of interlocutors in shaping communication.

This thesis employs CA to examine interactions involving six Mandarin-speaking individuals with aphasia in two settings: at home while communicating with their families, and in hospitals, where they converse with HCPs. It focuses on how aphasia shapes communication and how non-aphasic interlocutors, including SOs and HCPs, respond to these challenges in interaction.

The study reveals that people with severe aphasia frequently face difficulties in engaging in conversation due to inattentiveness. While they are physically present, they are often interactionally unresponsive, requiring non-aphasic interlocutors to engage their participation in most time. People with aphasia (PWA) also frequently experience negative emotions when struggling to answer test questions. People with Wernicke's aphasia tend to produce jargon, perseverations, and press of speech in conversation, which can prolong sequences and make turn-taking more challenging for non-aphasic interlocutors. To address these issues, SOs and HCPs employ various practices in their interactions with PWA. Notably, their practices in managing aphasia differ. SOs, who tend to be face-threatening, prolong repair sequences and highlight the aphasia-related challenges with negative emotions. They also enter the PWA's turn before it is completed, especially in response to the 'press of speech' produced by speakers with Wernicke's aphasia. In contrast, HCPs follow neutral, professional practices. They minimize aphasia-related issues, prioritize sequence progressivity, and use acknowledgement tokens to gloss over problems. These practices are less face-threatening.

While contributing to existing knowledge on aphasia, this thesis is the first to examine the everyday conversations of Mandarin speakers with aphasia. By analyzing the interactional practices used by HCPs and SOs, this research provides practical insights—for example, helping HCPs understand what conversations involving PWA look like at home—which may inform therapeutic practices. These findings have broader implications for developing more effective and culturally adaptable interventions for speech-language therapy in China.

Declaration

I, the author, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means (www.sheffield.ac.uk/ssid/unfair-means). This work has not previously been presented for an award at this, or any other, university.

Table of Contents

Chapter 1 Introduction

1.1 Background and Rationale for this Study

Over the past 25 years, Conversation Analysis (CA) has been extensively applied to the study of aphasia, particularly in English-speaking and European contexts (Wilkinson, 2024). These studies have provided valuable insights into how aphasia affects communication in everyday social interactions—ranging from conversations with friends and family members to those with professionals like doctors or therapists. In contrast, research on aphasia in Mandarin-speaking populations has primarily focused on linguistic aspects, such as the production and comprehension of language. For the past three decades, most studies have examined how individuals with aphasia process tonal, lexical (e.g., nouns, verbs, compound words), syntactic, and, more recently, discoursal elements of language (Kong & Wang, 2018). However, this body of research has largely focused on the language abilities of the person with aphasia in isolation from the social contexts in which everyday communication takes place, with little examination of the behaviour of the interlocutor who may be both intentionally and inadvertently influencing how language is used in the communication process.

1.2 Research Aims and Objectives

This study seeks to broaden the understanding of aphasia in Mandarin-speaking individuals by adopting CA methods and findings (Clift, 2016). It highlights the importance of investigating aphasia within the context of everyday social interactions, specifically examining the role of interlocutors, such as healthcare professionals (HCPs) and significant others (SOs).

In this thesis, I examine how Mandarin speakers with aphasia interact with both HCPs in clinical settings and SOs in ordinary conversations, focusing on three key conversational phenomena: first, PWA's disengagement in interaction; second, PWA's difficulties in producing answers for test questions; third, PWA's production of nonanswer responses (e.g., jargon and perseverations) and 'press of speech'. In each case, new findings will be presented on how aphasia impacts interactions, and how the two types of interlocutors respond to these impacts.

The primary objectives of this study are: (1) To explore how aphasia affects people with aphasia's (PWA) engagement in interaction; how aphasia impacts their production of answers to test questions, and how aphasia leads to the production of nonanswer responses and press of speech in interactions. (2) To analyze how, HCPs and SOs, each respond to these impacts in interactions with PWA.

1.3 Outline of the Thesis

This thesis consists of seven chapters. Chapter 1 introduces the background, research aims, and general structure of the study. Chapter 2 provides a review of the literature relevant to this study. It highlights gaps in the existing research, particularly regarding unexplored areas of aphasia's impacts on communication and how different interlocutors handle these challenges in their interactions with PWA. Chapter 3 introduces the

methodology used in this study. It introduces CA as a research method and some of the key findings of CA that have enlightened this research.

Chapters 4, 5, and 6 present the main data analysis of the thesis.

Chapter 4 examines how aphasia impacts PWA's attention, which in turn leads to their disengagement in conversation. It analyzes how HCPs and SOs both adapt to the PWA's inattentiveness and disengagement in a moment-by-moment manner through a range of linguistic, embodied, and material practices to establish and re-establish participation frameworks. It also highlights the different ideologies between the HCP and SO in managing PWA's disengagement.

Chapter 5 analyzes how aphasia may lead to the use of test question sequences which are often extended, and which result in emotion displays in these sequences. It contrasts the different interactional styles or practices through which the HCPs and SOs in this study engage in test question sequences with PWA. SOs display practices which prioritize the autonomy of the PWA and treat the PWA as accountable for their difficulties in producing the target answer. One effect of this way of dealing with the PWA's difficulties is that the progressivity of the sequence (Schegloff, 2007) is delayed. In contrast, the HCPs engage more in co-construction of the answer (by providing the PWA with cues) and do not explicitly treat the PWA as accountable for their difficulties. Due to these practices, progressivity is generally less delayed than in the PWA-SOs test question sequences.

Chapter 6 examines how symptoms of Wernicke's aphasia, such as jargon, perseveration, and press of speech, break down the sequence structure and turn-taking rules of the conversation. It highlights how HCPs and SOs deal with those sequential and turn-taking problems differently, with HCPs using practices to prioritize progressivity and SOs employing practices to prioritize understanding the real meaning of the PWA.

Chapter 7 summarizes the main findings and concludes that HCPs and SOs differ in their interactions with PWA. HCPs tend to act in ways that protect the PWA's face by minimizing aphasia-related problems and prioritizing progressivity, while SOs are more likely to expose aphasia-related problems through prolonged repair sequences and emotional responses, potentially threatening the PWA's face. The chapter then discusses the implications of these findings about existing research. It concludes by reflecting on the study's strengths and limitations and offering suggestions for future research directions.

Chapter 2 Literature Review

This chapter provides background on aphasia, conversation analysis (CA) as a method, key CA findings, and CA studies of conversations involving people with aphasia (PWA). Section 2.1 introduces aphasia, Section 2.2 outlines CA methodology and key findings of CA, and Section 2.3 reviews literature using CA to study conversations involving the PWA.

2.1 Aphasia

This section introduces aphasia and its current state of research in the Mandarin context. Section 2.1.1 explains what aphasia is, its causes, and the different types of aphasia, as well as distinguishing key terms related to aphasia. Section 2.1.2 discusses the current state of research on aphasia in the Mandarin context.

2.1.1 What is Aphasia

Aphasia is characterized by difficulties in understanding and producing language, typically resulting from sudden events such as strokes (including haemorrhages and occlusions of cerebral arteries) or gradual damage like brain infections or tumours in the language-dominant hemisphere of the brain (Brookshire, 2007; Beeke et al., 2020).

2.1.1.1 Linguistic Characteristics of Aphasia

People with aphasia have difficulties in understanding, speaking, reading and writing languages. Commonly, speech by people with aphasia is characterized by word-fining difficulties (e.g., semantic paraphasia, phonemic paraphasia, generalization, production of nonwords/jargons, delays) (Marshall, 2006), paragrammatism, agrammatism (Heeschen & Kolk, 1988), and recurrent utterances (e.g., stereotype speech, echolalia, perseveration) (Code, 1989).

Aphasiologists categorize aphasia into two primary types based on speech fluency: fluent aphasia and nonfluent aphasia (Code, 1989; Brookshire, 2007). Based on more specific lesion sites and linguistic characteristics, fluent aphasia is further subdivided into Wernicke's aphasia, anomic aphasia, conduction aphasia, and transcortical sensory aphasia, while nonfluent aphasia is further divided into Broca's aphasia, global aphasia, and transcortical motor aphasia. In this study, I explored interactions involving one person with global aphasia and one person with severe Broca's aphasia in Chapter 4, one person with anomic aphasia and one person with global aphasia in Chapter 5, and two people with Wernicke's aphasia in Chapter 6. In the following section, I will provide some information on the linguistic features of these specific types of aphasia examined by this study.

2.1.1.2 Types of Aphasia

Both Wernicke's aphasia and anomic aphasia are sub-types of fluent aphasia, which is caused by damage to the back part of the language-dominant hemisphere (posterior lesion). People with fluent aphasia exhibit speech that is fluent and effortless but often lacks meaningful content (Brookshire, 2007). Their speech

typically includes grammatical inflections and function words, but it is deficient in content words. Additionally, they often experience varying degrees of impaired comprehension.

Wernicke's aphasia, typically caused by a lesion in the temporal lobe of the language-dominant hemisphere, is one of the most common forms of fluent aphasia. People with Wernicke's aphasia speak fluently, producing long, grammatically complete sentences with a normal speech rate and intonation. However, they often produce semantic paraphasias, phonemic paraphasias, neologisms, jargon, or empty speech when struggling with word retrieval. They may also engage in circumlocution, talking around the target word. Another characteristic is that once they start speaking, they may talk excessively (press of speech or logorrhea). People with Wernicke's aphasia also have trouble understanding spoken language, they may blur sound or semantic distinctions. They also have reading and writing difficulties.

Anomia, caused by damage in the supramarginal and angular gyri in the inferior parietal lobe, is a type of fluent aphasia where the main problem is difficulty finding the target words in speaking and writing, especially nouns and verbs (Brookshire, 2007). This issue is common in all forms of aphasia, but in anomia, it is the primary or only symptom. People with anomia can still speak fluently and grammatically correct, understand language, and read well, but their speech may delay or seem empty because they avoid using specific words. Instead, they might use generalizations(e.g., thing, this) or word finding indicators (e.g., what was it) to replace the words they cannot find.

Broca's aphasia and global aphasia are sub-types of nonfluent aphasia**,** which is caused by damage to the anterior region of the language-dominant hemisphere. Individuals with nonfluent aphasia typically exhibit slow, laboured speech characterized by a reduced speaking rate and shorter utterances, with frequent pauses. Their speech often includes incomplete syntactic structures, with grammatical inflections commonly omitted. As a result, their communication relies heavily on nouns (Howard & Hatfield, 2018), leading to what is known as 'telegraphic' or 'agrammatic' speech (Heeschen & Kolk, 1988).

Broca's aphasia is the most common form of nonfluent aphasia, resulting from damage to Broca's area, located anterior to the primary motor cortex and responsible for speech production. People with Broca's aphasia speak non-fluently but generally maintain good comprehension abilities. Their speech is often described as 'telegraphic' or 'agrammatic' (Heeschen & Kolk, 1988), consisting mainly of content words like nouns and verbs, with a noticeable absence of function words and grammatical inflections. They commonly experience related difficulties with reading and writing.

Global aphasia is a severe form of nonfluent aphasia that typically results from an occlusion of the trunk of the middle cerebral artery (Naeser et al., 1982). Individuals with global aphasia experience profound impairments across all language abilities. Their speech is extremely limited, often consisting of only a few single words and is characterized by stereotyped or repetitive utterances. Despite these limitations, they may communicate using stereotyped speech, as well as through gestures and facial expressions. Some of them can

respond to yes/no questions, but their responses are often inconsistent and may occur by chance (Goodglass, 1993).

2.1.1.3 Key Symptoms of Aphasia

Paraphasia (Butterworth, 1979) refers to a type of speech error that can be categorized into **phonemic paraphasia** and **semantic paraphasia**. Phonemic paraphasia involves phonological errors, such as using incorrect sounds (e.g., 'iindermet' instead of 'internet') or transposing sounds within a word (e.g., 'morphile bone' for 'mobile phone'). Phonemic paraphasia (in contrast to jargon, see below) includes elements of the target word's phonology. Semantic paraphasia occurs when one word is substituted for another that is semantically related, such as saying 'coffee' instead of 'tea' or 'key' instead of 'lock'.

Jargon, on the other hand, involves speech errors that result in nonwords (neologisms), like 'plabla', which have no relation to the target word. Jargon speech can also take the form of an anomalous combination of real words, known as semantic jargon (Marshall, 2006).

Perseveration is termed as a 'tendency to repeat a behavioural pattern over and over irrespective of the context or stimulus and is a common and major characteristic of brain damage in all modalities…' (Code, 1982: 166). This could be represented by continuous repetition of a response (i.e. continuous perseveration) (e.g., A: how many dogs? B: one one one one one); repetition of a response of prior question to a new question within a subset of tasks (i.e. recurrent perseveration) (e.g., a PWA has answered rice to what have you had for breakfast, he gives the same answer rice again to the next question is it tasty?); repetition of a response of prior task to a new task (i.e. stuck-in-set perseveration) (e.g., A: name the picture. B: one one one one) (Sandson & Albert, 1984). For distinctions between perseverations versus palilalia, echolalia or stuttering repetitions, see Christman et al. (2004).

Echolalia refers to the action of one repeating the words or phrases one heard from others (Stigler, 2015). For example, a person might echo a phrase someone just said to them rather than generating their response. **Circumlocution** is a behaviour where a person (usually a person with Wernicke's aphasia) talks around a missing word (Brookshire, 2007), for example, instead of saying "apple," they might say "the fruit that's red and grows on trees. **Press of speech/logorrhea** is the tendency to talk excessively when taking the conversational floor (Luria & Hutton, 1977).

2.1.2 Aphasia in Mandarin Context

This section provides an overview of the research on aphasia in the Mandarin-speaking context, focusing on language comprehension and production.

Research on aphasia in the Mandarin-speaking context has predominantly focused on various linguistic deficits. These studies have employed a range of tasks, including picture naming (Bates et al., 1991; Lee et al., 2005; Crepaldi et al., 2012), object and action naming (Chen & Bates, 1998; Bi et al., 2007), reading aloud (Gao, 2006; Han & Bi, 2009; Crepaldi et al., 2012), picture description (Packard, 1993; Deng et al., 2023), storytelling (Li & Kiran, 2023), interviews (Packard, 1993), sequential-picture description (Su et al.,

2007; Jiang et al., 2024), and procedural discourse (Jiang et al., 2024), to explore the tonal, lexical, sentential, and discoursal deficits of Mandarin speakers with aphasia. Through these studies, we have enriched our understanding of the speech characteristics of Mandarin speakers with aphasia.

2.1.2.1 Tonal Deficits

Packard (1993) conducted studies on the speech of four Mandarin speakers with aphasia, using data generated from interviews and picture descriptions. Her findings revealed that these individuals exhibited tonal deficits, a conclusion that has been supported by subsequent research. Gao (2006) analyzed the Pinyin (i.e. spelt sounds) in the speech output of Mandarin speakers with aphasia and identified a unique communication disorder in Mandarin aphasia, called tonic paraphasia. Further studies by Liang (2009), Liang & Heuven (2004), and Li et al. (2021) have confirmed the presence of tonal deficits in Mandarin speakers with aphasia, noting that these speakers experience significant difficulties in perceiving tonal differences.

2.1.2.2 Lexical Deficits

A significant body of research has explored the lexical deficits of Mandarin speakers with aphasia. While a few of them focus on the features of their lexical production (e.g., word order deficits, (multisyllabic) word formation difficulties, word omissions) (Packard, 1993), a large group of this body of research primarily focus on the processing of nouns, verbs, and compound words (Bates et al, 1991; Tzeng et al., 1991; Chen & Bates, 1998; Lee et al., 2005; Crepaldi et al., 2012). Much of this literature engages in cross-linguistic comparisons, particularly examining whether the noun-verb dissociation observed in aphasia among English speakers, where a speaker struggles with verbs may not necessarily struggle with nouns, or vice versa (Goodglass & Baker, 1976; Berndt, 1996), holds in Mandarin—a language where verbs do not have tense or inflectional changes (Chao, 1979).

Bates et al. (1991) used a picture-naming task to study the lexical processing of nouns and verbs among Mandarin speakers with Wernicke's aphasia and Broca's aphasia. Their findings mirrored those from Western studies: people with Wernicke's aphasia experienced more difficulty with nouns, while those with Broca's aphasia struggled more with verbs. They attributed these differences not to morphological distinctions—since there are no morphological variations between nouns and verbs in Mandarin (Chao, 1979)—but rather to other factors inherent like these conditions. Chen and Bates (1998) further explored the complexities of Mandarin compound words, specifically VN (verb-noun) compound nouns (e.g., '打火机' - 'strike fire device' meaning 'lighter') and VN compound verbs (e.g., '看书' - 'look books' meaning 'read'). They observed that while these compounds are categorized as nouns or verbs at the lexical level, they contain elements of both categories at the sub-lexical level. Their research showed that Mandarin speakers with Broca's aphasia exhibited more problems with the verb morphemes within VN structures, while those with Wernicke's aphasia had greater difficulty with the noun morphemes in VN compound nouns, highlighting a verb/noun dissociation at both lexical and sub-lexical levels.

Tzeng et al. (1991) examined Mandarin aphasia speakers' processing of another group of words: classifiers (it can be used equally to the function words in English, usually being treated as grammatical morphemes in Mandarin that precedes and modifies nouns) using a picture description task. They found that Mandarin speakers with aphasia have difficulties in producing those classifiers. They tend to omit or substitute these classifiers. Later studies have shifted their focus towards understanding the underlying causes of these lexical deficits (Lee et al., 2005; Crepaldi et al., 2012), contributing to a deeper comprehension of how aphasia affects lexical processing in Mandarin speakers.

2.1.2.3 Sentential Deficits

Research on sentence-level deficits in Mandarin speakers with aphasia focus on aphasia speakers' sentence processing (Li et al., 1992; Yang & Cao, 1997; Su et al., 2007; Wang & Thompson, 2022) and production (Packard, 1993). These studies aim to understand how aphasia affects the ability to construct and understand sentences.

Packard (1993) conducted foundational studies on the syntactic structures of sentence production in Mandarin speakers with aphasia. Using language samples generated from picture descriptions, interviews, and conversations between experimenters and aphasia patients, Packard analyzed how aphasia affects sentence output. She found that agrammatism in Mandarin shares significant similarities with agrammatism observed in other languages. Specifically, Mandarin speakers with aphasia, like their counterparts in other languages, often omit grammatical function words and lexically less loaded morphemes. In Mandarin, this results in the omission of non-head elements in compound words, leaving only the head, which parallels the omission of inflectional elements seen in Western languages. Packard's research highlighted that these syntactic simplifications are a common feature of agrammatism across languages, despite the differences in linguistic structures.

Research on sentence processing in Mandarin-speaking individuals with aphasia has highlighted significant challenges in understanding complex sentence structures. Yang and Cao (1997) found that patients with aphasia struggled with intricate syntactic forms, such as passive constructions and sentences with embedded clauses, indicating difficulties with higher-level syntactic processing. Su et al. (2007) expanded on this by examining comprehension across seven different sentence types, revealing a broad spectrum of processing difficulties in aphasic speakers. Additionally, Wang & Thompson (2022) investigated how Mandarin speakers with Broca's aphasia manage null objects, comparing their processing to that of healthy speakers. This research focuses on specific challenges faced by Broca's aphasia patients in interpreting sentences where objects are omitted or ambiguous. This group of studies provide knowledge on the syntactic comprehension issues in Mandarin aphasia.

2.1.2.4 Discoursal Deficits

Discourse-level research in Mandarin aphasia has been less common and has only come out very recently (Jiang et al., 2023; Deng et al., 2023; Li & Kiran, 2024), especially when compared to studies in Cantonese (Kong, 2009; Kong et al., 2014; Law et al., 2018). While Packard (1993) touched on discourse

issues, recent research has started to explore this area more thoroughly. Jiang et al. (2023) used core lexicon analysis to examine discourse among Mandarin speakers with anomic aphasia, identifying challenges in core word retrieval on the discourse level. Deng et al. (2023) investigated how different discourse tasks affect language performance, suggesting that specific tasks should be carefully selected in clinical assessments. Li and Kiran (2024) further studied patterns of verb and noun impairment in both single-word naming and discourse production, they concluded naming has direct relations with lexical retrieval in discourse contexts, reinforcing the importance of considering discourse in aphasia research.

2.1.2.5 Summary

Studies on aphasia in Mandarin contexts mainly focus on the linguistic production and comprehension associated with aphasia in the past three decades. The bulk of the work in this area focuses on analysis of the ability of the person with aphasia to produce and process tonal, lexical (e.g., nouns, verbs and compound words), sentential (e.g., syntactic structures) and discoursal (only until very recently) resources. In doing so, attention has largely focused on the language abilities of the person with aphasia in isolation from the social contexts in which everyday communication takes place, with little examination of the behaviour of the interlocutor who may impact how language is used in the communication process.

This study, with one of the aims to enrich the current studies on Mandarin speakers with aphasia, will address the importance of examining aphasia within the social context of everyday conversation involving Mandarin speakers with aphasia, including an examination of the role of the interlocutors in interaction.

2.2 Conversation Analysis

This section provides an overview of conversation analysis (CA) as a method for studying interaction, it also highlights some key findings of CA relevant to this study. Data examined in this study reveals that aphasia impacts the PWA's participation in interactions (Chapter 4), their performances in test question sequences (Chapter 5), and their sequence structure and turn-taking (Chapter 6). It also demonstrates that the interlocutors, HCPs in hospital settings and SOs at home, manage those impacts differently across all chapters. I will therefore focus on CA research in these specific areas including participation frameworks, institutional talk and everyday conversation, test questions, sequence organization, and turn-taking. Section 2.2.1 focuses on CA methodology, including data collection, transcription, and analysis. Section 2.2.2 distinguishes between institutional and everyday conversations, with a focus on test questions as a type of institutional conversation. Section 2.2.3 discusses participation in social interaction, including the participation framework and recipiency as aspects of engagement. Section 2.2.4 introduces repair. Section 2.2.5 covers sequence organization and progressivity. Section 2.2.6 examines turn-taking organization, including overlap and anticipatory completion.

2.2.1 Conversation Analysis and its Methodology

Conversation Analysis is an empirical approach rooted in earlier work by Garfinkel (1967) and Goffman (1957) and is characterized by its bottom-up, data-driven methodology. It focuses on analyzing recordings of conversations and other forms of talk to study social interaction (Sidnell, 2011). Emerging from

American sociology in the 1960s and 1970s, it was pioneered by scholars such as Harvey Sacks, Emanuel Schegloff, and Gail Jefferson (1974). This approach emphasizes unmotivated observation of naturally occurring "talk in interaction", to uncover the underlying order or structure of conversations (Stivers & Sidnell, 2012; Clift, 2016; ten Have, 2007).

2.2.1.1 Data Collection in Conversation Analysis

CA emphasizes the importance of using naturally occurring data, as it allows researchers to capture the nuanced details of real interactions. Unlike experimentally produced data, the recordings reflect genuine interactional behaviour and focus on authentic conversations where communicative resources such as stress, pitch, and timing play pivotal roles in how people interact in their daily lives. To maintain the natural quality of the CA data, researchers work best to minimize the influence of the recording process. While it is recognized that participants might initially be self-conscious or alter their behaviour when aware of being recorded (especially with video), this effect can be minimized by extending recording time to help participants become accustomed to the equipment, thereby reducing its impact on their natural behaviour (Wilkinson et al., 2020).

To gather this data, researchers typically utilize audio or, more preferably, video devices to record telephone or face-to-face interactions. While early CA research often relied on telephone audio recordings, audio recordings alone cannot capture non-verbal cues like gestures and gaze, which are essential components of communication. Moreover, telephone conversations are generally restricted to two-party interactions, limiting the complexity of the data. Video recordings, on the other hand, offer a more comprehensive view by capturing not only the spoken data but also the accompanying body movements, facial expressions, and gaze patterns. These visual elements are crucial for understanding how participants produce and understand interaction in real time. Therefore, CA researchers prioritize video recordings as they provide a richer and more detailed resource for analyzing social actions in talk-in-interaction (Sidnell & Stivers, 2012).

2.2.1.2 Data Transcription in Conversation Analysis

In CA, the collected data are transcribed for detailed analysis. The transcription process is crucial because it involves deciding which aspects of the interaction are relevant and significant for the participants, and thus, what needs to be included in the transcripts.

CA has developed specific transcription conventions designed to capture a wide range of interactional features that are vital for analysis. The most widely used transcription convention in CA is developed by Jefferson (2004). This convention focuses on the transcription of overlaps, silences, prosodic elements like loudness, and so on. Mondada (2019) conventions are often employed to capture non-verbal features such as body movements, gestures, and eye gaze. By including these details, transcriptions can offer a more comprehensive view of how communication is achieved through both verbal and non-verbal means.

2.2.1.3 Data Analysis in Conversation Analysis

Conversation Analysis (CA) is a qualitative method that involves a turn-by-turn examination of conversational interactions, focusing on how participants use interactional practices to produce talk and

accomplish social actions (Sidnell, 2011). CA data analysis involves unmotivated data observation through repeatedly examining recordings and their transcriptions to identify potentially interesting phenomena of a particular aspect of, for instance, turn-taking (Sacks et al., 1974), repair (Schegloff et al., 1977) or sequences (Schegloff, 2007). This process is conducted without any predetermined hypotheses or psychological biases (Heritage & Clayman, 2011). Initially, observations may reveal broader patterns, but as analysis progresses, more subtle and nuanced aspects of interaction may emerge. After making preliminary observations, researchers collect examples of the phenomena of interest from the data. These examples are grouped into collections that help uncover systematic features across various instances of interaction, such as turn-taking, repair, or sequence organization. The focus is on how these conversational practices function within their specific social contexts, particularly about the turns immediately preceding and following the phenomenon under investigation (Hutchby & Wooffitt, 2008).

While CA traditionally emphasizes qualitative analysis, there is also a growing recognition of the value of incorporating quantitative methods (Heritage, 1995). However, quantitative analysis in CA is seen not as an alternative but as a complement to the qualitative analysis of single cases (Schegloff, 1993).

2.2.2 Conversational Talk-in-interaction and Institutional Talk-in-interaction

CA highlights the differences between ordinary conversation and institutional talk (Drew & Heritage, 1992). Ordinary conversation refers to the casual, everyday interactions that people engage in during their daily lives, typically with friends or family members. This type of conversation is informal and often focuses on routine or familiar topics, without any particular agenda or formal structure. Ordinary conversation has no prior specification of its duration, topics, or the order of speakers. The flow of conversation is managed organically, with participants intuitively navigating when to speak and how much to say. It is important to note that ordinary conversation is not entirely unregulated; it operates within what Goffman (1983) refers to as the 'interaction order,' where underlying constraints and purposes subtly guide how we communicate in everyday life. Institutional talk, on the other hand, has specific objectives and goals. The structure and content of institutional talk are often predetermined and regulated. Professionals in institutional settings are cautious about what and how they contribute to achieving institutional goals (Heritage, 2013). They have a limited range of options compared to the broader possibilities available in ordinary conversation. It is also important to note that the distinction between institutional talk and ordinary conversation is not always strict; at times, the boundaries between them can be permeable and uncertain (Drew & Heritage, 1992).

2.2.2.1 'Institutional Features' of Institutional Talk

Drew and Heritage (1992) have identified the distinctive features that make institutional talk 'institutional' from the following key aspects, which have been further summarized in Heritage's later work (2013).

***Turn-taking*:** While practices in ordinary conversation are managed locally (Sacks et al., 1974), the organization of practice in institutional settings is more predictable and subject to specific procedures (e.g., ceremonies, tests). For example, in institutional settings, turn-taking may be pre-allocated, with professionals

primarily asking questions and lay persons limited to responding, as seen in courtrooms (Atkinson & Drew, 1979; Drew & Almeida, 2020), classrooms (McHoul, 1978; Gardner, 2019), or interviews (Greatbatch, 1988; Clayman & Heritage, 2002). In this sense, the professional largely leads the conversation and determines its progression by deciding what and when the layperson contributes.

Overall Structural Organization: Activities conducted in institutional settings (e.g., in medical consultations (Byrne & Long, 1976; Robinson, 2011) and courtroom proceedings (Atkinson & Drew, 1979)) are typically task-oriented, resulting in a specific internal structural shape. In contrast, ordinary conversation is subject to flexible changes based on the participants' inclinations (Drew, 2012). It is important to note that the internal structure of institutional talk is not a definitive indicator of its nature, and ordinary conversation is not completely unstructured. Both ordinary and institutional talk possess an interaction order (Goffman, 1983) and can be structured to some extent. For example, the structure of an interview may sometimes resemble that of everyday conversation, featuring openings and closings without a clearly defined structure between them (Clayman & Heritage, 2002).

Sequence Organization: Institutional talk is characterized by the prevalence of question-answer sequences (Heritage & Clayman, 2012). The structure of those question-answer sequences in institutional talk is also distinctive. Unlike ordinary conversation, where a third-position response 'oh' (Schegloff, 2007) often signals the end of a sequence, institutional talk typically features an acknowledgement such as 'okay' to sustain the continuation of the sequence.

Turn Design and Lexical Choices: Professionals often design their turns with cautiousness (Heritage, 2013) or neutrality (Heritage & Greatbatch, 1988; Clayman, 1988) to reflect the institutional context or to manage complex social relations (e.g., between home and school) (Drew & Heritage, 1992). Professionals frequently use institutional euphemisms that represent the organization rather than individuals (e.g., substituting 'I' with 'we') (Sacks, 1992) or employ specialized lexical resources to assert their knowledge and institutional identities (Korsch & Negrete, 1972). They tend to withhold expressions of surprise, sympathy, agreement, or affiliation in response to statements made by lay persons. While such withholdings might be perceived as disaffiliating or unfriendly in ordinary conversation, they are not necessarily interpreted in this way within professional contexts. Conversely, remarks that might be considered benign in casual conversation can be seen as threatening or inappropriate in an institutional setting (Drew & Heritage, 1992; Heritage, 2013).

Interactional and Epistemic Asymmetries: While it is true that asymmetries exist between parties in all forms of communication (Linell, 1998), the asymmetries in institutional talk are more pronounced and impactful (Heritage, 2012). Professionals typically possess greater knowledge of the institutional context and procedures, which influences the course of the interaction. These significant asymmetries between professionals and laypersons can affect the latter's participation in the conversation. In institutional talk, professionals generally have more authority to initiate, select, sustain, and conclude topics, while laypersons tend to participate more passively, with limited involvement (Heritage, 2013).

2.2.2.2 Test Question Sequences as a Practice within Institutional Talk

A test question (Searle, 1969), also known as a 'known information question' (Mehan, 1979) or 'known answer question' (Schegloff, 2007), is a question asked by a questioner who already knows the answer. By asking a test question, the questioner aims to assess the questionee's knowledge of the topic. Unlike 'real' or information-seeking questions, where the questioner lacks the information being sought (Heritage, 2012), test questions focus less on exchanging information and more on verifying that the respondent possesses the required knowledge or skills.

Test questions are commonly used in task-based assessments, such as language testing in educational or clinical settings, including classrooms (Mehan, 1979; Schegloff, 2007) and speech-language therapy (Wilkinson, 2013; Merlino, 2018), to achieve the institutional goals of language assessment and teaching. These sequences typically involve three components: the questioner's question, the questionee's response, and the questioner's evaluation in the third turn. The structure of the sequence is largely shaped by the nature of the task, particularly depending on whether the questioner withholds the third-position evaluation or not (Schegloff, 2007). This dynamic reinforces the asymmetry in institutional interactions, where the professional (e.g., a teacher or a therapist) holds authority and knowledge, with the right to initiate, sustain, or end the conversation, while the respondent (e.g., a student or patient) is evaluated based on their ability to meet the expectations set by the questioner.

While test questions are typically used in institutional settings and are not commonly used in everyday conversations, those who encounter such questions in ordinary conversational settings may feel demeaned or 'put down' by the questioner, whether jokingly or seriously (Schegloff, 2007).

2.2.3 Participation in Conversation

2.2.3.1 Participation Framework

Goffman (1979) introduced participation frameworks in his discussion of 'footing'. It refers to 'all the activity in the situation' for that 'moment of talk' (Goffman, 1979:137). Goffman stresses the talk and the associated activities or 'contextual matrix' surrounding it (Goffman, 1979:143). Goffman (1979) also proposed another concept, 'participation status', which means the relations participants have to their utterances. He has decomposed various participant roles based on whether they were ratified as addressed or unaddressed hearers, bystanders, overhearers, or eavesdroppers. He has uncovered the laminated speaker roles into animator (the person who verbally produces the words), author (the person who builds the words), principal (the person responsible for what is said), and figure (the character mentioned in animator's speech) (Goffman, 1979). For example, in a team meeting at work, and a manager is presenting a new project, the manager (animator) verbally shares the project details with the team. However, the content they are speaking about was created by the project lead (author). The company's leadership (principal) is responsible for the project being discussed, and when the manager mentions someone such as John, John becomes the 'figure' in the conversation. According to Goffman (1979), these four roles constitute an utterance's 'production format'.

Instead of focusing on the roles of different speakers or hearers, Goodwin and Goodwin (2004) suggest shifting the focus to how these participants collaborate to create a course of action. According to them, speakers and hearers work together in an ordinary course of action that they constructed not only through talk (i.e., speech and linguistic resources) but also through how they produce talk, their visible body movements (e.g., gestures, body orientations, and posture), and sometimes even the physical surroundings. They emphasize an analytical framework that includes the participants and their talk, as well as the forms of embodiment and social structures through which different participants collaboratively create.

Within this framework, participation (i.e., actions participants take to show their engagement and involvement as the conversation unfolds) is an active process. Speakers are attentive to how their hearers receive their actions and activities. They also observe their hearers' behaviours and systematically adjust their speech and body language to align with the level of engagement or disengagement that their hearers display (Goodwin, 1979; Heath, 1984).

2.2.3.2 Engagement and Recipiency

The concept of engagement originates from Goffman's (1963) work on 'involvement', which refers to "the capacity of an individual to give, or withhold from giving, his concerted attention to some activity at hand [. . .] a certain admitted closeness between the individual and the object of involvement, a certain overt engrossment on the part of the one who is involved'' (Goffman, 1963: 43).

Within conversation analysis, Peräkylä et al. (2021) and Peräkylä et al. (2023) have refined this notion by emphasizing that engagement is closely related to involvement but carries a more local and momentary connotation. In their opinion, engagement is displayed through embodied actions that signal willingness and attentiveness to participate in the encounter. Peräkylä et al. (2021) and Peräkylä et al. (2023) have identified three key facets of engagement: 'postural and perceptual orientation to the co-participant' (i.e., bodily gazing or orienting to co-participants); 'collaboration in joint action' (i.e., engagement in the action); and 'sharing of the local moral order' of the encounter (i.e., engagement with the local moral order) (Peräkylä et al., 2021: 259). Engagement can be understood when the participant displays through their body and actions to the co-participant, "I am here with you in this."(Peräkylä et al., 2021: 260).

'Postural and perceptual orientation to the co-participant' refers to whether a participant gazes at or bodily orients toward their co-participant(s) (Peräkylä et al., 2021). Heath (1984) conceptualizes such bodily alignment, particularly through gaze and posture, as a display of recipiency, signalling attentiveness to the ongoing interaction. While recipiency does not necessitate sustained mutual gaze, recipients generally expect to look at the speaker when the speaker directs their gaze toward them (Goodwin, 1980). If a speaker gazes at an addressed recipient but finds their gaze averted, whether directed elsewhere or engaged with another object, this may indicate inattentiveness or a lack of recipiency (Heath, 1984). In such cases, speakers may adapt by using practices such as phrasal starts, pauses, word stretches (Goodwin, 1981), verbal summons (Lerner, 2003), bodily adjustments (e.g., gaze shifts, reorientation) (Heath, 1984; Rae, 2001), or gestures like pointing

(Keisanen & Rauniomaa, 2012) to secure the recipient's attention. Recipients, in turn, may adapt by adjusting their orientation or gaze to the co-participant.

The second facet of engagement, 'collaboration in joint action,' concerns participants' providing the following relevant actions in conversation (Peräkylä et al., 2023). This is closely tied to the concept of response. A recipient may display recipiency yet withhold a response, or they may respond while not displaying recipiency ('responding without responding') by choosing not to show attentiveness (Peräkylä et al., 2023:10).

The third facet of engagement concerns stance (Peräkylä et al., 2023; Bergmann & Peräkylä, 2024). For example, withholding a response while disengaging from collaborative action may serve as an interactional resource for conveying a negative stance (e.g., resisting alignment with a complaint directed at oneself) (Peräkylä et al., 2023). In such cases, withholding becomes a meaningful interactional move tied to the moral order of the situation.

In Chapter 4, the participants in this study were diagnosed with severe aphasia, which significantly impacts their ability to display attentiveness to co-participants and to produce relevant actions. Unlike in the cases described by Peräkylä et al. (2023), where withholding a response may be interactionally motivated (e.g., to resist alignment with a complaint), the disengagement observed in this study does not occur within a complaining context. It may not function as an intentional act of withholding. PWA participants neither display recipiency (e.g., by gazing at or bodily orienting to the speaker) (Heath, 1984; Peräkylä et al., 2023) nor respond to conversation. Typically, non-aphasic interlocutors must address this lack of recipiency before they can elicit a response from the PWA. Given this situation, this study will focus on the first facet of engagement, 'postural and perceptual orientation to the co-participant.' Specifically, it will examine how HCPs and SOs work to (re)establish recipiency in conversation with PWA.

2.2.4 Repair

Repair has been a central theme in aphasia conversation studies (Wilkinson, 2015), as PWA often experience communication difficulties which are dealt with using repair practices. PWA may self-initiate repair to address word-finding difficulties, speech errors, or other language problems. At the same time, aphasia can make PWAs' speech hard to understand (e.g., due to jargon or telegraphic speech), prompting conversation partners (CPs) to initiate repair (other-initiated repair, or OIR). In some cases, PWA may also have trouble understanding or hearing others, leading them to initiate repairs directed at CPs. This thesis addresses repair in multiple contexts. In Chapter 5, for instance, repair emerges when a conversational partner initiates a test question, which can quickly develop into a repair sequence. Chapter 6 also explores repair practices as both family members and therapists constantly seek clarifications from speakers with Wernicke's aphasia.

Given the prominence of repair across these chapters, we begin here by introducing the concept of repair within the framework of CA. This provides the foundation for understanding how repair has been studied in interactions involving PWA and sets the stage for the analyses that follow.

2.2.4.1 Repair in Conversation Analysis

Repair is the set of practices whereby a participant interrupts the ongoing course of action to attend to possible trouble in speaking, hearing or understanding the talk (Schegloff et al., 1977). Such 'trouble' includes misarticulations, incorrect or unavailable word use, problems with hearing or being heard or understood, or incorrect understandings by recipients. Repair, then, functions to ensure that interaction does not freeze in its place when trouble occurs and that intersubjectivity is maintained or restored to allow the turn, sequence, and activity to progress to completion (Kitzinger, 2012).

Repair typically consists of two components: repair initiation and repair completion. Both the speaker who produces the trouble source (i.e., self) and the recipient (i.e., other) can initiate and complete the repair (Schegloff et al., 1977). Four types of repairs are categorized according to whether the initiation and completion are carried out by the speaker or the recipient: self-initiated self-repair, self-initiated other-repair, other-initiated self-repair, and other-initiated other-repair. Self-initiated repair typically occurs within the same turn as the trouble source, often immediately after the problem arises or at a transition-relevant place. In some cases, however, self-initiation of repair may also occur in the third turn, following the response to the trouble-source turn. While speakers most commonly initiate and complete the repair of their own trouble source, there are also cases where the recipient initiates repair, prompting the speaker to resolve the trouble source (i.e., other-initiated self-repair). In terms of other-initiation of repair, recipients can initiate repair in various ways, ranging from general open-class repair initiators (e.g., "what?", "sorry?", or "huh?") to more specific forms, such as offering a candidate understanding (Schegloff et al., 1977; Kendrick, 2015). In some instances, the recipient may both initiate and complete the repair themselves, a process known as other-initiated other-repair, which often involves other-correction (although not all corrections qualify as repair) (Bolden, 2024).

The organization of repair is governed by a preference for self-repair over other-repair (Schegloff, 1979). This means that if a speaker self-initiates repair, the preferred option is that they also then self-repair that trouble source (as opposed to another participant other-repairing it). The sequential position of repair initiation also reflects this preference. Same-turn repair occurs when the speaker self-repairs within the same turn as the trouble source, while transition-space repair occurs at a transitional relevance place. If the trouble remains unresolved, a recipient may initiate repair in the next turn, allowing the speaker to repair themselves (Schegloff, 2000a). In some cases, self-initiated self-repair may occur in the third turn, following the recipient's response to the trouble source (Schegloff, 2013).

2.2.4.1 Repair in Conversations Involving People with Aphasia

PWA often have different kinds of speaking difficulties that come up regularly in their conversations. These can include searching for words, using the wrong words (lexical errors), making grammar mistakes or leaving out parts of sentences. Because of these challenges, PWA often self-initiate repair to resolve problems in their speech (Helasvuo et al., 2004; Wilkinson, 2007; Laakso, 2014; Leaman & Archer, 2022). In addition, non-aphasic speakers may often find it hard to understand what someone with aphasia is saying or trying to say, particularly when their speech is marked by jargon, omissions, or syntactic difficulties, with the result

being that they regularly produce other-initiations of repair (Milroy & Perkins, 1992; Taylor et al., 2014; Barnes, 2016; Barnes & Ferguson, 2015; Laakso & Godt, 2016; Beeke et al., 2020). Aphasia can also affect how well the PWA understands what others say. Sometimes, they might also have trouble hearing, such as age-related hearing loss. These hearing and/or understanding problems mean that the PWA may also regularly produce other-initiations of repair (Klippi, 2015). As a result, repair—where speakers stop to fix or clarify parts of the conversation—is often a common part of interactions involving PWA (Wilkinson, 2015).

Aphasia often leads PWA to self-initiate repair during conversation, particularly when they encounter challenges like word-finding difficulties or errors. In these instances, PWA may begin speaking using one syntactic construction, but when unable to retrieve the word, their speech may be marked by cut-offs, elongations, pauses, or metalinguistic comments such as "what was it". Unable to complete the original construction, they then abandon it and start a new search (Helasvuo et al., 2004). When self-repair is not quickly or successfully achieved, it can result in extended repair sequences, drawing attention to the breakdown and potentially highlighting the speaker's identity as "communication disabled". This may lead to emotional reactions, such as frustration (Lock et al., 2001), or what has been described as 'embarrassed laughter' (Wilkinson, 2007). In cases where the PWA is temporarily unable to resolve the trouble source themselves, the CPs may step in and assist in continuing the conversation.

Several studies highlight the collaborative nature of repair between PWA and CPs in resolving communication difficulties. In these interactions, errors in speech can be directly repaired, particularly when the conversation occurs between individuals with close relationships, such as family members (Ferguson, 1994; Laakso, 2015; Laakso & Godt, 2016; Beeke et al., 2020). CPs also collaborate by offering guesses or initiating alternative cues to help narrow down the search, depending on whether they have shared knowledge (Laakso & Klippi, 1999; Helasvuo et al., 2004; Oelschlaeger, 1999; Beeke et al., 2020; Oelschlaeger & Damico, 2003). One key strategy for repair involves providing cues, where CPs support the PWA in self-repairing by offering semantic or phonological hints, to help them correct their speech (Laakso, 2015; Laakso & Godt, 2016). This collaborative approach is especially evident in contexts where a known-response first pair part (K-R FPP) is initiated by the CP, prompting the PWA to repair and produce an expected response (Wilkinson, 2014; Lindsay & Wilkinson, 1999; Aaltonen & Laakso, 2010; Beeke et al., 2013; Barnes & Possemato, 2020; Bauer & Kulke, 2004). Here, the CP's role in repair is typically not to provide the answer directly but to prompt the PWA in a way that facilitates self-repair.

In general, repair in aphasia is more frequent and prolonged (Helasvuo, Laakso, & Sorjonen, 2004; Laakso & Klippi, 1999; Wilkinson, 2007). This increased frequency and duration of repair is due, in part, to the linguistic deficits that cause the original communication breakdowns, which also hinder the PWA's ability to quickly self-repair. As a result, repair is often a recurrent activity in aphasic conversations, especially for individuals with moderate to severe aphasia, with participants spending a significant portion of their conversational time engaged in repair work.

This overview has outlined the role of repair in conversations involving PWA more generally. For a focused review of how repair sequences unfold in the context of Wernicke's aphasia, see Section 2.3.5.2. Additionally, a small body of research compares repair across different conversational settings—see Section 2.3.2.

2.2.5 Sequence Organization and Progressivity

Sequences are "courses of action implemented through talk" (Schegloff, 2007: 3). Sequence organization refers to the structuring of these courses of action through turns-at-talk. The basic unit of sequences is called an adjacency pair. It consists of two turns: a first pair part (FPP), which initiates an action (e.g., a question or offer), and a second pair part (SPP), which responds to the prior action (e.g., an answer or acceptance/refusal). An FPP makes an SPP conditionally relevant (i.e., after the completion of an FPP, the recipient is expected to provide a corresponding SPP). One feature of sequences is their expandability; a sequence can be expanded either before the FPP (pre-expansion), between the FPP and SPP (insert expansion), or following the SPP (post-expansion) (see Fig. 1). These expansions can lead to complex interactional structures within social interaction (Schegloff, 2007).

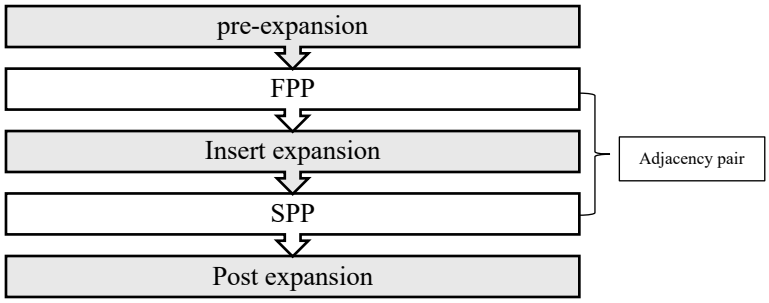


Fig 1 Adjacency pair sequence structure and its expansions, adapted from Kendrick et al. (2020).

"Sequences are the vehicle for getting some activity accomplished" (Schegloff, 2007: 4). Within a sequence, there is a preference for progressivity (Schegloff, 1979), that is, following a first pair part initiation, the sequentially implicated next items, i.e. a second pair part response (be it an answer or nonanswer), should come "next". Schegloff (2007: 14-15) wrote:

> "The default relationship between the components of most kinds of organization is that each should come next after the prior. In articulating a turn-constructional unit, each element – each word, for example – should come next after the one before; in fact, at a smaller level of granularity, each syllable – indeed, each sound – should come next after the one before it. So also with the several turn-constructional units that compose a multi-unit turn; so also with the consecutive turns that compose a spate of talk; so also with the turns that compose a sequence, etc. Moving from some element to a hearably-next-one with nothing intervening is the embodiment of, and the measure of, progressivity."

Any other insert sequences (e.g., repair sequences) (Schegloff, 2007) that may otherwise occur are regarded as retarding the progressivity of the sequence and are not preferred (Robinson, 2020). Thus, in terms of sequence organization, preferred responses have generally been analyzed as actions that favour the

accomplishment of the activity and, therefore, the forward-moving nature of the interaction (Stivers & Robinson, 2006).

2.2.6 Turn-taking Organization

2.2.6.1 Turn-taking

In everyday conversation, people take turns speaking one at a time in a locally managed and participant-controlled way. The participants themselves decide who speaks, when they speak, how long they speak, and what they say. Turn-taking systematically organises how turns are allocated among participants in a conversation (Sacks et al., 1974). It involves two key components: turn constructional units, where a transition relevance place (TRP) is reached by the possible completion of any turn construction units (TCU), and turn allocation, where the transfer of speakership happens at the TRP (Sacks et al., 1974).

Turn allocation can occur in two ways: the current speaker selects the next speaker, or the next speaker self-selects (Sacks et al., 1974). These turn allocations follow rules that apply at each TRP. If a participant is specifically selected to speak next, they have priority. If the current speaker does not choose anyone, the other participant may self-select by speaking first. If no one else self-selects, the current speaker may continue speaking. In multimodal conversation analysis, turn-taking is sometimes used to describe the allocation of turns for activities other than talking (Keevallik & Ekström, 2019).

2.2.6.2 Overlap

Speaker transfer naturally occurs at a TRP. However, sometimes, speakers may misjudge the possible completion point, leading to overlaps where more than one speaker talks simultaneously, often at the end of one turn and the beginning of a new one.

Overlaps are situations where multiple speakers talk simultaneously (Jefferson, 1986). Most overlaps are brief, as participants typically resolve them quickly (Schegloff, 2000b), and they are generally considered legitimate and not problematic (Jefferson, 1986). The outcome of resolving overlaps is contingent on the situation (Schegloff, 2001). Following an overlap, the current speaker retains the turn, or the next speaker takes over.

2.2.6.3 Anticipatory Completion

Although overlaps usually occur legitimately due to turn-taking miscues, the next speaker sometimes intentionally interjects during the middle of the current speaker's turn. Jefferson (1986) referred to this as 'interjacent onset overlap', which can be used to achieve specific social actions. While there can be varying degrees of turn incursion (Schegloff, 2001), a commonly occurring example is 'anticipatory completion' (Lerner, 1996).

Anticipatory completion is a practice where the next speaker begins speaking before the current speaker's turn constructional unit (TCU) reaches a transition relevance place (TRP) (Lerner, 1996). This creates a 'collaborative turn sequence' (Lerner, 2004), where the first speaker is provided with an opportunity

to either confirm or reject the second speaker's completion as an accurate continuation of the thought they were about to express.

2.3 Applying Conversation Analysis to Aphasia

This section reviews literature relevant to the current analytical focus of this study on how PWA and their interlocutors engage in interactions. It begins with a general overview of CA studies on aphasia, highlighting some of the key findings. The review then narrows to areas that have received less attention in previous research and are directly related to this study: comparisons of conversations between the PWA and healthcare professionals versus family members or friends, the use of 'test questions' in interactions, and how Wernicke's aphasia affects everyday conversation. Section 2.3.1 provides an overview of CA studies on aphasia. Section 2.3.2 examines how non-aphasic interlocutors manage interactions with PWA in medical and family settings. Section 2.3.3 reviews the literature on using test questions in interactions between PWA and healthcare professionals in medical settings and with family members or friends at home. Finally, Section 2.3.4 focuses on CA studies related to Wernicke's aphasia.

2.3.1 Overview of CA Studies on Aphasia

The study of aphasia from the perspective of CA began in the 1990s (Wilkinson, 2015; Wilkinson, 2024). Over the past 25 years, research has examined both fluent and non-fluent aphasia (Laakso & Godt, 2016), focusing on conversational data between the PWA and either healthcare professional, such as a speech and language therapist (SLT) or pathologist, or those with whom the PWA interact most in their daily lives, such as spouses, family members, or friends (e.g., Lock et al., 2001; Wilkinson et al., 2003). Some studies have analyzed conversations in both settings (Lindsay & Wilkinson, 1999; Laakso, 2014; Laakso & Godt, 2016). Through this analysis, findings have emerged across various aspects of conversation, including how aphasia impacts turn turn-construction through self-initiations of repair (e.g., Wilkinson et al., 2003; Helasvou et al., 2004; Beeke et al., 2003a,b; Beeke et al., 2013); how repair attempts are prolonged compared to typical speakers due to a difficulty in achieving the preferred outcome of self-repair (e.g., Wilkinson, 2007; Laakso, 2014); and how the PWA may adapt/find new ways of constructing turns which lessen the impact of repair with simplified grammatical structures (e.g., Wilkinson et al., 2003) and multimodal practices (e.g., Goodwin, 1995; Wilkinson, 2013). In some cases, interlocutors exhibit distinct behaviors, such as producing recurring other repair initiations when they struggle to fully understand the PWA (e.g., Laakso & Klippi, 1999). They may also show cooperative actions by providing next-turn repair solutions (e.g., Beeke et al., 2020; Laakso & Godt, 2016) or take on specific roles, such as using test questions (e.g., Lock et al., 2001; Barnes & Possemato, 2020) to cue and prompt the PWA in producing answers. These studies have significantly enhanced our understanding of the nature of aphasia and its impact on interaction. Moreover, the findings have informed a growing body of research aimed at developing, implementing, and evaluating aphasia interventions in clinical contexts for the PWA and their everyday conversational partners (Beeke et al., 2007; Wilkinson & Wielaert, 2012; Beeke et al., 2015).

While this study does not aim to review all CA literature on aphasia, it will focus on studies illuminating this thesis. I will review the studies explicitly comparing the PWA's conversations with professionals and family members, research using test question sequences in different settings, and studies on Wernicke's aphasia. Following this literature review, my analysis will explore the conversational impact of aphasia on Mandarin speakers and how healthcare professionals and significant others manage those impacts in conversation.

2.3.2 CA Studies on Comparing PWA-SOs Interactions and PWA-HCPs Interactions

Although CA has been applied to the study of aphasia for over 25 years, only a few studies have compared how different conversational partners, such as family members in home settings and healthcare professionals in hospital settings, respond to and manage conversations with the PWA (Lubinski et al., 1980; Perkins, 1995; Linday & Wilkinson, 1999; Laakso, 2015; Laakso & Godt, 2016). The existing studies reviewed here have revealed significant differences in how speech-language therapists (SLTs) and family members manage interactions with the PWA, particularly in handling conversational breakdowns or repairing. A straightforward difference is that repair sequences in institutional therapy sessions are longer than those in home settings. These differences are primarily influenced by each group's distinct roles and goals in their interactions with the PWA. Therapists, operating within a clinical and goal-oriented framework, often prioritise the PWA's active participation and autonomy by offering cues to let the PWA self-repair (Lubinski et al., 1980; Perkins, 1995), while family members, particularly spouses, tend to focus on conversational progressivity (Laakso, 2015; Laakso & Godt, 2016), even though they sometimes also stress linguistic accuracy (Lindsay & Wilkinson, 1999).

Lubinski et al. (1980) conducted one of the earliest examinations of these differences, analyzing repair sequences between a PWA and her husband and those between the PWA and her SLT. The interactions with the therapist consist of two types of data: everyday conversation and language treatment sessions. Lubinski et al. (1980) revealed that repair efforts were more laborious in therapy sessions, and the sequences were longer. In contrast, conversational data—whether with the therapist or the husband—showed fewer breakdowns, with repairs completed more swiftly. Even within conversational data, subtle differences emerged between clinicians and family members in handling conversational troubles. Clinicians tended to gloss over problems, while the spouse engaged in 'hint-guess sequences' and 'correction sequences' where he would guess or correct his wife's production.

Perkins (1995) employed conversation analysis and quantitative methods to compare two data types in her study on how aphasia affects turn-taking and repair in conversations. She examined interactions between the PWA and their relatives, as well as between people with aphasia and herself as the researcher (she is also a therapist). Perkins found that PWA produced more major conversational turns in their interactions with researchers than with their relatives. Additionally, there were more collaborative repairs in conversations with the researcher than with relatives.

Lindsay and Wilkinson (1999) examined repair sequences in conversations involving two people with aphasia, each interacting with their spouse and therapist. The study revealed distinct repair patterns between these interactions. Therapists tend to minimize the interactive consequences of aphasic difficulties; they are more likely to accept a close approximation of the intended message without insisting on its precise articulation. In contrast, spouses often bring repair issues to the forefront; they pursue accurate linguistic production with a revision sequence even after knowing the target. This led to more extended repair sequences between PWA and their spouses than those with therapists.

Using data collected at home and during therapy sessions, Laakso (2015) examined how significant others and therapists collaborate with the PWA in word searches in conversation. She found that significant others quickly provided the target word through a collaborative completion. This collaborative process occurs when PWA solicit assistance—typically through gaze or pointing—and the significant other provides the missing word. As a result, these search sequences are shorter. In contrast, speech-language therapists adopt a different approach. Rather than immediately providing the word, therapists encourage the PWA's efforts by withholding the word and offering cues instead. Even when the therapist knows the target word, they refrain from giving it directly. Instead, they might provide the initial sound or part of the word as a hint, prompting the aphasic speaker to complete it independently.

In another study, Laakso and Godt (2016) analyzed 110 sequences across four conversations involving a fluent aphasia speaker and a non-fluent aphasia speaker, each interacting with a family member and a therapist. They compared the participation patterns of the same PWA's conversational partners (their significant others and therapists) and examined how different types of aphasia might influence these interactions in both settings. The findings highlight that conversations with fluent aphasia speakers often involved repairs, while those with non-fluent speakers tended to involve co-construction. Specifically, family members of people with fluent aphasia were more likely to engage in direct next-turn repair, such as providing the correct word or correcting an error. On the other hand, therapists working with fluent aphasia speakers were more indirect, avoiding interruptions by not offering immediate corrections. There was no significant difference between the participation of family members and therapists in interactions with non-fluent aphasia speakers. They both tend to engage in co-construction, collaboratively helping to build the conversation with the non-fluent aphasia speaker.

The studies on aphasic conversations underscore the significant influence that non-aphasic conversational partners have on interactions. The research reveals important implications for future clinical practices regarding the differences between institutional PWA-professional conversations and everyday PWA-family member conversations (Lindsay & Wilkinson, 1999; Laakso & Godt, 2016). However, the existing body of research comparing these settings is still limited in scale and number. Therefore, further research is needed to explore these differences in greater depth.

2.3.3 CA Studies on Recipiency in Interactions Involving Speakers with Varying Levels of Competence

In interactions involving participants with varying levels of competence, such as young children (Butler & Wilkinson, 2013; Gan et al., 2023), the recipiency of co-participants can occasionally be at issue. Difficulties may arise when a child struggles to secure the attention and recipiency of an adult or, conversely, when an adult attempts to mobilize a child's recipiency. Butler and Wilkinson (2013) have investigated how a five-year-old child employs various practices to mobilize recipiency in multiparty interactions involving three adults. These practices include summoning and moving into the line of sight of the intended recipient and persistently pursuing recipiency when initial attempts fail. Their analysis highlights how, for a child in adult-dominated interactions, the challenge may involve mobilizing the adult addressee's recipiency and engagement.

Gan et al. (2023) have explored a slightly different dynamic by examining interactions where an unaddressed third party, typically a grandparent, employs a variety of practices to elicit a fitted second pair part (SPP) from an addressed recipient, usually a child, who has not positioned themselves as a ready recipient. These practices include repeating or reformulating the parent's initial first pair part, using embodied actions such as touching, or material practices like positioning the camera or physically animating the child's body.

The studies discussed above have shown that attention requests typically occur in multiparty interactions. They have highlighted multimodal resources (e.g., gaze, body orientation, and material objects) in securing recipiency. In these studies, recipiency is often established implicitly and dynamically as participants interact in real-time. For example, a subtle restart or hesitation by one speaker may co-occur with the recipient's reorientation of gaze (Goodwin, 1981), or a bodily movement by one participant may prompt a corresponding movement by the other, forming mutual orientation (Heath, 1984). These actions may also be embedded in the core action of pursuing a response (Gan et al., 2023; Keisanen & Rauniomaa, 2012). Such practices demonstrate how recipiency is accomplished non-verbally as part of the natural progression of interaction rather than as a preparatory step separated from the primary action.

However, establishing and sustaining recipiency presents distinct challenges in interactions involving PWA. Before the conversation starts or at the turn-initial position of an FPP, mutual orientation is often not achieved due to PWA's attention deficits (Code, 1989). Similarly, intended recipiency can become problematic during interaction as PWA may struggle to sustain attention. Unlike in ordinary conversations where recipiency is established implicitly, the process in interactions involving PWA requires more explicit and direct actions. Requests for attention to secure recipiency tend to take the form of overt practices (e.g., gaze to me) accompanied by non-verbal cues, including touching, tapping, or systematic adjustments in body orientation or spatial positioning. These practices are often employed as separate actions within the interaction, underscoring the increased effort required to engage PWA's recipiency and sustain their participation in the conversation.

2.3.4 CA Studies on Test Question Sequences in Interactions Involving PWA

Several studies have explored test questions as social interactions in conversations involving speakers with aphasia (Wilkinson, 2013; Merlino, 2018; Lock et al., 2001; Burch et al., 2002; Bauer & Kulke, 2004; Beeke et al., 2013; Barnes & Possemato, 2020), with most focusing on conversations between the PWA and their family members at home.

Section 2.3.3.1 reviews the literature on test question sequences in conversations between the PWA and healthcare professionals. Section 2.3.3.2 examines test questions in conversations between the PWA and family members and discusses the relationship between test questions and negative emotions. Section 2.3.3.3 reviews the interactional practices (or, more generally, 'styles') used by interlocutors (healthcare professionals or family members) when responding to incorrect second pair part (SPP) answers in test question sequences.

2.3.4.1 CA Studies on Test Question Sequences in PWA-HCPs Interactions

Naming objects or actions is a common practice in clinical settings to assess a person's language abilities (Kaplan, Goodglass & Weintraub, 2001; McKenna & Warrington, 2009). Although testing is frequently used as a therapeutic practice in speech-language therapy, where assessment or instruction is integral to the institutional activity, studies on test question sequences in therapy sessions are relatively scarce (Wilkinson, 2013; Merlino, 2018).

Wilkinson (2013) examined naming tests as an institutionalized form of interaction, outlining the three-turn sequential structure of the naming test sequence. This structure includes (1) a first-pair part test question by the tester, (2) a second-pair part response by the testee, and (3) a third-turn acceptance or rejection by the tester. He points out that acceptance of the testee's answer closes the sequence. In contrast, rejection of the testee's answer results in extending the testing sequence by prompting another attempt from the testee. This process can continue until the correct answer is accepted or the sequence is abandoned. Wilkinson (2013) also explored the practices of acceptance and rejection, noting that acceptance typically features preferred response characteristics, such as being produced immediately following the answer, while rejection often carries dispreferred response characteristics, such as being produced with a delay or not being produced.

Merlino (2018) also investigated this sequence, focusing on the embodied resources interlocutors use to accomplish the institutional goal of therapy or testing language ability. She found that manipulating materials (e.g., cards, objects), PWA's gazes, and embodied gestures collectively ensure the progression of the three-part structural sequence. Merlino specifically examined what happens when a third-turn evaluation is absent and how the PWA may use audible or visible resources to solicit assistance from the therapist. She also explored how therapists respond to these resources by providing cues. Merlino emphasized using multimodal resources in the sequential progression of the three-part sequence structures.

2.3.4.2 CA Studies on Test Question Sequences in PWA-SOs Interactions

While test questions are typically confined to specialized settings and are not commonly used in everyday conversations among neurotypical adults, a notable feature of interactions between the PWA and their family interlocutors (e.g., spouses, partners, friends, grown-up children) is that at least some non-aphasic interlocutors pose test questions to the PWA (Lock et al., 2001; Burch et al., 2002; Bauer & Kulke, 2004; Beeke et al., 2013; Barnes & Possemato, 2020). In these studies, when the PWA fails to produce answers to the following test questions, significant others withhold correction even though they know the answer and use cues to elicit the answer from the PWA. Significant others are seen eliciting in granularity with phonemic or semantic cues (Beeke et al., 2013; Bauer & Kulke, 2004) and designedly incomplete utterances (DIUs) (Barnes & Possemato, 2020) to solicit a correct production from the PWA. Another two related practices where the non-aphasic interlocutor tries to elicit a response from the PWA despite already knowing the response are: 1) 'correct production sequences' (Lock et al., 2001), where a non-aphasic interlocutor elicits the correct production of a word or phrase, often after an incorrect phonemic production by the PWA; 2) 'exam halts' (Aaltonen & Laakso, 2010; see also Wilkinson, 2006) where the non-aphasic interlocutor responds to a word search by the PWA by withholding assistance, even though the target is known to the interlocutor.

This group of studies argues that PWA frequently expresses negative emotions in test question sequences in the interaction involving PWA. However, the findings on using test question sequences and their relation to negative emotion displays are not always consistent. Locket al. (2001) and Burch et al. (2002) found that test question sequences may result in negative emotional displays from PWA and suggested intervening conversations by eliminating test questions in everyday talk. Bauer and Kulke (2004) found this is not always true. In their examination of how family CPs use test question sequences as a way of 'language exercises' (The language exercise features family members repeating a correction of an error (i.e. learning by repeating) following a repair sequence or initiating or sometimes inserting a language exercise through test questions.), they found negative emotions only occurs in the test question sequences that are initiated or inserted by a non-aphasic speaker. No negative emotions are displayed when the exercising activities are jointly agreed upon in advance or initiated by the PWA themselves. Additionally, in the test question sequences examined by Beeke et al. (2013), no negative emotion occurs even though no agreed activity is established beforehand. This study will add to our knowledge of emotion displays in test question sequences by introducing the negative emotion displays by spouses.

2.3.4.3 Test Question Sequences and Practices in Managing Incorrect SPP Attempts

Test question sequences display a particular sequential structure consisting primarily of three turns (Schegloff, 2007; Kevoe-Feldman & Robinson, 2012): (1) test question by the non-aphasic interlocutor; (2) answer attempt by the PWA; (3) response to the answer attempt by the non-aphasic interlocutor. The third turn response by the non-aphasic interlocutor has different sequential implications for what the PWA should do next, depending on whether the interlocutor treats the PWA's answer attempt as correct or not. If the

interlocutor's response treats the answer attempt as correct, this ends the sequence. If it does not treat the answer attempt as correct, another answer attempt by the PWA is relevant (Schegloff, 2007). On production of a subsequent answer attempt by the PWA, the interlocutor will again treat it as correct or incorrect. If treated as incorrect, this pattern continues until there is one of three outcomes: (1) the person with aphasia produces a correct answer; (2) the interlocutor produces the correct answer for the person with aphasia (at which point, the person with aphasia will often try to repeat the correct answer) or (3) the interlocutor abandons the sequence.

When the PWA does not answer the test question correctly, family interlocutors may employ different practices to elicit answers from the PWA. These different practices revolve around one central issue: progressivity (Schegloff, 1979), i.e., the expectation that the test question activity will be completed reasonably quickly. They either (1) thoroughly prioritize progressivity, for example, by providing the answer (see Extract 1), or (2) partially adhere to progressivity by neither providing the answer nor withholding it but rather co-constructing the answer with the PWA through cueing (see Extract 2).

The interlocutor can respond to prioritize progressivity by providing the answer or abandoning the sequence. For instance, in Extract 1 (from Burch et al., 2002), Sandra, Jim's wife, a person with aphasia, asks a test question (line 01). Jim has difficulty answering it and producing a non-answer response in line 04 (Stivers & Robinson, 2006). Sandra responds by changing the question (line 05), but Jim cannot answer again (line 06). Sandra then (line 07) answers her test question from line 01.

Extract 1

```
01 Sandra: where-where-where was it being set(.)wuh- what's the name of the book
02      [ (1.9)
03 Jim: [((puts his hand to his face))
04         well I (1.2) I dunno.=
05 Sandra: =can- can you remember who wrote it
06 Jim: (1.2) uh yes I- I- I've got to think but yes I-
07 Sandra: and (.) well the name of the book (0.6) is A Passage to India
08 Jim: oh. (.) yeah.
```

One feature of Sandra's behaviour here is that (as we shall see from subsequent extracts) she has chosen one of a range of options from how she could respond in this post-answer slot. Compared to the other available options, this option facilitates the progressivity of the sequence (Schegloff, 2007) in that it brings the test question activity to an end and allows the conversation to progress to other matters. Extract 1, therefore, provides an example of one type of practice or style that interlocutors of people with aphasia can display within test question sequences, and we will discuss this practice/style as one that prioritizes progressivity. It should be noted, however, that following a question, there are other interactional expectations in play beyond progressivity. For example, a question makes an answer relevant to its recipient (Schegloff, 2007), and an adequate answer is preferred over other types of answers (Stivers & Robinson, 2006). This highlights the type of dilemma faced by interlocutors of people with aphasia and exemplified by Sandra here; by providing the answer, the preference for progressivity has (to a limited extent at least) been adhered to, but the preference for Jim to provide an adequate answer has not been adhered to at all.

A second option for how interlocutors of the PWA might respond to the lack of a correct answer within a test question sequence is to consider co-construction to adhere to progressivity partially. A common feature of this style is cueing, where the interlocutor provides either a semantic or phonemic cue to help the PWA produce the target word. An example is seen in Extract 2 (from Barnes & Possemato, 2020). Here, Carmen is talking with her husband David, who has aphasia, about their grandchildren and engages in test questions, trying to elicit their names from David. When David cannot produce the correct answer, Carmen gives him semantic cues (lines 14) and phonemic cues (lines 19 and 21). David is then able to produce the correct answer (line 23).

Extract 2

```
001  C two of Taryn's gi:[rls ca]me,
002  D                    [yeah, ]
003               (0.6)
004  C d'you remember what their names are?
005               (0.9)
006  C >what's the< youngest one;
007               (1.6)
008  D .hh hh
009  C 1j'st take y'r time,=i'm sure you can get (it out)
010               (0.6)
011  C Taryn's youngest daughter.
012               (0.5)
013  D hhh (0.5)
014  C she's blonde, long hair:,
015               (0.6)
016  D yeah: i c'n see 'er,
017                (.)
018  D but (.) (i j'st) can't get the words out.
019  C A-
020               (0.9)
021  C A(p)-
022               (0.7)
023  D Ap- (0.4) .h A April.
024               (0.2)
025  C April.
026  D *yeh.*=
```

When, as here, this cueing is successful, the preference for the recipient of the question to provide the answer (Stivers & Robinson, 2006) is adhered to, albeit only partially, since the PWA physically has produced (or 'animated': Goffman, 1979) the target word but it has not been produced autonomously. Rather, it has been co-constructed (i.e. partially 'authored': Goffman, 1979) by the interlocutor. The preference for progressivity (Schegloff, 2007) has also partially been adhered to since the PWA has produced the target word without a prolonged delay.

In Chapter 5, I will present how interlocutors, including two HCPs and two SOs, respond to incorrect responses to test questions. In each case, the HCPs use an interactional style that adheres partially to the progressivity of the test question sequences, as illustrated in Extract 2. In contrast, the SOs' practices seem to retard the progressivity of the testing activity. With this style, the SOs ask the PWA to produce the answer themselves without providing any cues or information about the target word. While contrasting the styles

between HCPs and SOs in conducting test question sequences with PWA, I will also demonstrate how aphasia is highlighted in these interactions and how negative emotion displays from both SOs and PWA may arise during these sequences.

2.3.5 CA Studies on Interactions Involving People with Wernicke's Aphasia

Wernicke's aphasia is a type of fluent aphasia. While people with Wernicke's aphasia speak fluently, their speech often includes paraphasias, empty words, and circumlocution. They may also dominate the conversation and struggle with auditory comprehension (Brookshire, 2007; Greenwald, 2018).

Despite these significant communication challenges, little research has been done on how people with Wernicke's aphasia engage in everyday conversations. Only a few studies have explored aspects such as turn-taking and repair (Schienberg & Holland, 1980; Ferguson, 1998; Auer & Rönfeldt, 2004; Beeke et al., 2020) in conversations involving people with Wernicke's aphasia.

2.3.5.1 Turn-taking in Interactions Involving Speakers with Wernicke's Aphasia

Although speakers with Wernicke's aphasia may exhibit the characteristic of speaking excessively once they have taken the conversational floor (Brookshire, 2007), some earlier studies on turn-taking in Wernicke's aphasia have not found that turn-taking is significantly impaired by the condition (Schienberg & Holland, 1980; Ferguson, 1998). However, Schienberg and Holland's (1980) conclusion that turn-taking ability remains intact in Wernicke's aphasia is based on excluding parts of the conversational data where one party dominates the conversation. This dominance may represent one of Wernicke's aphasia's impact on conversation (Ferguson, 1998). While further consolidating Schienberg and Holland's conclusion on repair in conversations involving people with Wernicke's aphasia, Ferguson (1998) further examined whether familiarity affects turn-taking in these conversations. She analyzed conversations between an individual with Wernicke's aphasia and a familiar therapist and conversations between the PWA with two unfamiliar conversation partners. Ferguson (1998) found that familiarity does not significantly impact turn-taking in these conversations.

A study by Auer and Rönfeldt (2004) has drawn different conclusions from examining a German-speaking Wernicke's aphasia speaker. They found that the speech characteristic of people with Werneck's does impact turn-taking. In their study, the speaker with Wernicke's aphasia constantly exhibits 'prolixity' to impede turn-taking in a word-searching activity. They employ this style of speech to conceal their word-finding difficulties during conversation. In a conversation where the PWA have difficulties searching for the next due word, non-aphasic interlocutors may assist (Laakso & Godt, 2016; Beeke et al., 2020), and turn-taking occurs. However, Auer and Rönfeldt (2004) found that speakers with Wernicke's aphasia sometimes avoid this assistance by lowering their volume, effectively masking their word-finding difficulties. After reducing their volume, the speaker might either succeed in self-repairing their speech and continue with increased loudness or, if they failed to self-repair, they might switch to a different topic, again speaking in increased loudness. In these cases, the speaker's difficulty in accessing a word was hidden by the initial decrease in volume following the introduction of a new topic or utterance with an increased volume.

2.3.5.2 Repair in Interactions Involving Speakers with Wernicke's Aphasia

Studies on repair in conversations involving speakers with Wernicke's aphasia reveal that these individuals often struggle with self-repair, particularly errors or word-finding issues (Beeke et al., 2020). Beeke et al. (2020) identified two standard practices when examining how non-aphasic interlocutors assist in these repairs.

The first and most frequently used is turn completion. When a PWA initiates a word search, a non-aphasic conversation partner may complete the turn by providing the searched-for word. This is similar to the turn completions observed in typical conversations during word searches (Lerner, 1996). The second practice is correction. When a PWA makes an error (e.g., selecting the wrong gendered pronoun or substituting a name with a pronoun), the non-aphasic interlocutor may directly correct the error in the next turn. Both correction and completion are effective in swiftly accomplishing repair, thereby addressing issues of intersubjectivity while maintaining progressivity. A non-aphasic interlocutor may offer a candidate understanding to seek mutual understanding for complex trouble sources that persist over several turns.

The current study will add to this research on Wernicke's aphasia by presenting how different aphasia problems, such as jargon, perseveration, and press of speech, impact sequence structures and turn-takings in conversation and how healthcare professionals and significant others manage them differently.

2.4 The Present Study

The literature review highlights two key research gaps: 1) There is a lack of research on aphasia conversations in Mandarin contexts, with existing studies primarily focusing on how Mandarin speakers with aphasia produce and process language. 2) While conversation analysis (CA) studies of aphasia are extensive, there remain underexplored areas, including comparisons of conversations across different settings and studies on severe stages of aphasia, such as Wernicke's and global aphasia. Additionally, previous research has not thoroughly examined how aphasia affects engagement in conversations.

This study addresses these gaps in two significant ways. First, it will contribute to the literature on Mandarin speakers with aphasia by introducing the first CA study that focuses not on the linguistic deficits of aphasia (see Section 2.1.2) but on how these deficits impact everyday conversations with healthcare professionals and family members. The findings will help clinical professionals understand how the PWA communicate in real-life home settings, potentially informing aphasia intervention strategies in clinical settings in China. Second, the study will enhance the growing body of work on aphasia and aphasic interactions by examining conversations between the PWA and healthcare professionals in hospital settings, as well as with family members or friends at home. It will reveal differences in how non-aphasic interlocutors engage with the disengaged PWA, conduct test question sequences, and manage issues such as jargon, perseveration, and press of speech in Wernicke's aphasia. By juxtaposing conversations in these different settings, this study will contribute valuable insights into the underexplored areas of CA research on aphasia.

2.5 Chapter Summary

This chapter reviews the literature on aphasia, providing background on different types of aphasia and the current state of research on aphasia in the Mandarin context. It also introduces and highlights some of the key findings within CA. Finally, the chapter discusses CA studies on aphasia, identifies research gaps, and outlines the research focus of the current study.

Chapter 3 Methodology

3.1 Introduction

This chapter provides an overview of the procedures and methods involved in the study. Section 3.2 provides a detailed description of the criteria and procedures for participant recruitment. Section 3.3 presents the participant's profiles. Section 3.4 introduces data collection procedures and discusses COVID-19's impact on data collection, storage, and management. Sections 3.5 and 3.6 describe the processes for data transcription and data analysis. Section 3.7 summarizes the chapter.

3.2 Participants Recruitment

In this section, I present how the participants were recruited for this study. Section 3.3.1 presents the participants' selection criteria, and Section 3.3.2 outlines the steps taken to recruit participants for the study.

3.2.1 Participants Selection Criteria

Inclusion Criteria:

People with aphasia who are at least 6 months post-onset, and preferably longer, were eligible to participate in this project. This criterion was based on research findings indicating that language abilities tend to stabilize in persons with aphasia after the 6-month post-onset period (Swinburn, 2004). We did not impose restrictions based on the severity or type of aphasia, as doing so could limit the dataset size and constrain our ability to make unmotivated observations. Our objective was to identify any regular patterns across the dataset, regardless of participants' aphasia type or severity.

Exclusion Criteria:

Participants with severe cognitive impairments are excluded from the project to ensure they can comprehend the basic information necessary for making an informed decision about participation.

3.2.2 Participants Recruitment Steps

14 healthcare professionals, 7 family members, 3 acquaintances of people with aphasia, and 30 people with aphasia signed consent forms and were recruited for this project. The study received ethical approval from China in June 2021 (Appendix 2) and the UK in July 2021 (Appendix 3).

The recruitment procedure followed these steps:

(1) Informed consent for healthcare professionals

Following obtaining the ethical approval, I was introduced to four main medical professionals (including three nurse leads and one language training lead) who are in charge of the healthcare, physiotherapy and language therapy for people with aphasia. I initiated an online meeting with them to introduce the project. A digital version of the information sheet (Appendix 4) about the research project was also sent to them during the meeting. After the meeting, the four leading healthcare professionals will introduce the project to their

colleagues (other nurses and therapists). A follow-up online meeting was conducted with those interested in participating in the research. During this meeting, I sent out the digital version of the information sheets for healthcare professionals (Appendix 4) and walked them through each section to answer their inquiries on this project. I also presented the research aims, ethical considerations, and a basic instruction guide on using cameras, accompanied by verbal explanations.

For healthcare professionals who consented to participate after reviewing the information sheet, I sent them the digital versions of the consent form (Appendix 5) to sign. The consent form allowed them to specify how their data could be used, including whether they consented to be reviewed in other academic activities (e.g., conferences, teaching) beyond the dissertation. They could also indicate their preferences for anonymizing their details. Extra copies of consent forms were provided in case any other healthcare professionals were inadvertently recorded. Any portions of the video where non-consenting healthcare professionals appeared were edited out. All 14 healthcare professionals consented to allow the research student, supervisors, other researchers (e.g. on conferences), and students (for teaching purposes) to view the data only if their faces are obscured through pixelation. 2 healthcare professionals have consented to have their recordings destroyed upon the completion of the PhD. At the same time, 12 have permitted indefinite use of their data.

(2) Informed consent for people with aphasia and their significant others

The speech-language therapists identify individuals who meet the criteria for this project. Following completing the Western Aphasia Batteries (Kertesz, 1979) test, they inquire whether these patients are interested in joining the research project.

For patients staying inwards without accompanying their families, the therapist provided an aphasia-friendly information sheet for the PWA (Appendix 6) while verbally explaining the project to them. For those with accompanying family members, the information sheet was given to both the patient and their family members (Appendix 7), along with a verbal explanation of the project. If the patients or their family members expressed interest in joining the project, the therapist left the information sheets (aphasia-friendly for the patients and a standard version for the family members, if needed). Consent forms (aphasia-friendly for the patients (Appendix 8) and a standard version for the family members (Appendix 9)) for three days to allow them to consider their participation in the research, including whether they preferred to join in the medical setting only or in both the medical and family settings.

Three days later, the language therapists return to check with the patients staying in the wards, both those without and with the accompaniment of family members; in the latter case, the speech-language therapists also check with the family members for their consent. If the PWA and their family members are still willing to participate (whether in the medical setting or both settings), they are asked to sign the consent forms. Additional copies of the consent forms and information sheets are provided if other family members or acquaintances (e.g., relatives, neighbours) appeared in the recordings. Again, those who had not given consent but were recorded in the video were edited out. Family conversational partners also have the option to specify how their data could be used, including whether they want their data to be reviewed in academic activities

beyond the dissertation and how their details should be anonymized in cases where the PWA who understand the project but have difficulties in writing, their family members are asked to sign on their behalf.

In total, 6 families of the PWA (7 family members and 3 acquaintances) consented to participate in the research. All of them consented to allow the research student, supervisors, other researchers (e.g. on conferences), and students (for teaching purposes) to view the data as long as their faces were obscured through pixelation, and all 6 families were granted permission for indefinite use. 30 PWA gave consent to participate in this research project. Of these, 1 gave full consent to have their data viewed without pixilation, 22 allowed their recordings to be viewed with pixilation, and 7 restricted viewing to only the research team. Regarding data use following the project, 22 PWA allowed indefinite use, while 8 permitted data use until the completion of the PhD.

3.3 Participants

This study recruited 30 people with aphasia (PWA) from a hospital setting, with 6 of them also being video-recorded in their home environments. To achieve the research aim of examining PWA interactions in medical and home settings and to explore the similarities and differences in their communication with two types of interlocutors, I ultimately focused on data from the 6 PWA who interacted with healthcare professionals in the hospital and significant others at home. The participants' profiles are presented in Table 1.

3.3.1 Participants Profile

Participants	Age	Gender	Months post-onset	Aphasia type	AQ score	Healthcare professionals	Significant others
Lun	51	male	15	Global	18.2	Therapist (R)	Wife (Yan)
Wan	56	male	8	Broca's	Not known	Nurse (K)	Wife (Rui)
Fang	53	male	16	Anomic	41.5	Therapist (R)	Wife (Lan) Son-in-law Neighbour
Mao	51	male	26	Global	21.0	Therapist (B)	Wife (Hua) Neighbour
Jian	61	male	19	Wernicke's	21.4	Therapist (G)	Daughter
Jun	42	male	9	Wernicke's	52.6	Therapist (H)	Father

Table 1. Participants profiles

3.3.2 Introduction to Participants with Aphasia

The following section provides details of the participants with aphasia to provide context for the data.

3.3.2.1 Lun

Lun is an in-hospital patient who suffered a stroke due to an intracerebral haemorrhage in the brainstem in 2020. He is a patient with multiple comorbidities, including pneumonia and heart disease. Following a Western Aphasia Battery (WAB) (Kertesz, 1982) test conducted by his therapist, Lun was diagnosed with global aphasia. His wife stays with him in the hospital during the data collection process. He attends speech-language therapy sessions twice a week.

Lun shows a certain degree of engagement in therapy sessions but struggles with sustaining attention. He retains the ability to repeat one- or two-word phrases but has significant difficulty repeating and producing longer sentences. He can understand simple instructions if they are repeated multiple times. His speech is characterized by delays and incomplete syntactic structures, making it challenging for others to follow. Lun rarely speaks when addressed with questions in everyday conversations, such as those with his wife. According to his wife, he was pretty talkative before the stroke.

3.3.2.2 Wan

Wan is an in-hospital patient. A CT scan revealed that he suffered strokes in his left frontal lobe and multiple places in other areas of the brain, including the left basal ganglia. As of the time of data collection, he had experienced three strokes, with the most recent one occurring in 2021. Wan is in the severe stages of his life as a person with aphasia. In addition to his strokes, he suffers from a range of digestive diseases and lung diseases. Wan was diagnosed with Broca's aphasia.

Despite his condition, Wan retains good comprehension abilities. He can understand spoken language well and manage yes/no questions effectively. However, his speech is marked by incomplete syntactic structures, and his responses are primarily limited to yes/no tokens and occasional two- or three-word phrases, which are often delayed. Wan speaks in a low volume, seldom initiates conversation, and exhibits inactive engagement when involved in conversation.

3.3.2.3 Fang

Fang is an outpatient participant who attends physiotherapy and speech-language therapy twice weekly. He has been a stroke for one year and four months as of the date of data collection. The stroke has significantly limited movement on the right side of his body, but he has no other diseases apart from the stroke. He lives at home with his wife, daughter, and son-in-law. His wife comes together with him for a therapy session. Following a WAB test conducted by his therapist, Fang was diagnosed with anomic aphasia.

Fang demonstrates quite good understanding abilities and can produce grammatically complete sentences. However, his speech is characterized by word-finding difficulties. He can initiate and engage well in conversations, although his speaking speed can sometimes be rapid.

3.3.2.4 Mao

Mao suffered a brain injury after falling from a high-altitude work site. The fall resulted in multiple haemorrhages in his brain, leading to paralysis on the right side of his body. Due to his physical limitations, he does not go to the hospital. His wife reports to his doctor his condition and collects his medication on his behalf.

As of the date of data collection, Mao has not undergone any language tests or therapy, as his aphasia was deemed too severe for intervention, according to his doctor. For this research project, however, a therapist administered a test, and Mao was diagnosed with global aphasia two years and two months after his brain injury.

Mao's comprehension ability is limited, but he can understand basic instructions and express his essential needs. His speech is highly restricted, with his most frequently used phrase being the stereotypical 'one is not ok'. He also often makes a stereotyped gesture of forming a circle with his thumb and index finger. Although he can say swear words and repeat single words or short phrases reasonably well, he cannot generate sentences longer than two words, except for his stereotyped phrase.

3.3.2.5 Jian

During data collection, Jian was one year and seven months post-onset. He lives at home with his wife but is currently back in the hospital following a minor stroke. His daughter visits him often when he stays in the hospital. His language abilities have not changed much since his previous stroke, as indicated by his WAB scores and his therapist's assessment of his communication skills. While in the hospital, he attends daily physiotherapy and speech therapy sessions.

Jian presents with severely impaired language abilities. Although his speech is fluent, he has poor comprehension and is filled with jargon that makes little sense. He also tends to persevere, giving the same responses to different questions. As a result, his conversational partners often struggle to understand him. However, Jian can comprehend basic instructions and respond well to simple yes/no questions.

3.3.2.6 Jun

Jun was previously a manager for a large chain store supermarket. In 2020, he suffered a stroke, and a CT scan revealed a haemorrhage in his left temporal gyrus. After the stroke, he stayed in the hospital for five months, receiving regular physiotherapy and speech therapy. His body was not significantly affected by the stroke. He could walk by himself. After five months, he was discharged from the hospital and continued to attend weekly physio and speech therapy sessions. He now lives at home with his parents.

Jun's speech production is fluent, but he cannot understand spoken language. His speech is characterized by frequent errors, neologisms, and anomalous syntactic structures, often filled with linking words. He tends to repeat phrases or sentences from others' speech. The most striking feature of his speech is his 'press of speech', where he speaks continuously without pausing.

3.4 Data Collection

To learn how HCPs in hospitals and SOs at home respond to the PWA differently, the study initially aimed to gather data from 40 PWA and as much home-based data from the same participants as possible. However, because some of the PWA could not consent, we finally collected data from 30 participants, with 6 of them also being video-recorded with their SOs. Despite this reduction, the dataset remains sufficiently large for this project (Wilkinson, 2024). In total, we have video-recorded 11 hours 58 minutes 33 seconds of video recordings of 29 Mandarin speakers of aphasia's interaction (i.e., everyday conversation, language assessment data, and speech-language therapy data) with 13 medical professionals from a AAA class hospital (Sanjia Yiyuan) in China. Based on the participant's consent, 1 speaker's conversation with a speech-language therapist is audio-recorded, which lasts for 25 minutes and 18 seconds. 6 of 30 participants with aphasia and

their families also gave consent for video recordings of their talks with family members. Some video recordings between family members and the PWA are recorded at the hospital, and some are at home. A total of 5 hours 31 minutes 21 seconds of video recordings is collected between family members and the PWA (Table 2).

Recording location	Participants	Recording length (h)	Total (h)
Hospital	PWA and healthcare professionals	11:58:33	11:58:33
	PWA and significant others	01:05:00	
Home	PWA and significant others	04:26:21	05:31:21

Table 2 Recording details

3.4.1 Data Collection in Hospital

In medical settings, the speech-language therapist or the nurse (given online video guidance instruction before data collection) would set up the camera on a tripod in advance. When shooting, the therapist/nurse would inspect the camera to ensure it captures both the health professional and the patients and runs properly. The recordings length is 20-35 minutes for each participant. A total of 11 hours, 58 minutes, and 33 seconds of recordings have been collected from 30 people with aphasia. The recordings in medical settings are conversations when the healthcare staff (e.g. doctors, nurses and other health professionals) have everyday conversations with the aphasia patients in the ward, and interactions occur during speech-language therapy/assessment in the rehabilitation training room. After recording, the healthcare professionals upload the video directly to Google Drive using the link shared by the research student.

Healthcare professionals also record videos of family conversations in the hospital. These recordings capture interactions between family members and patients with aphasia during family visits or when a family member stays with the patient.

Healthcare professionals were advised to stop recordings if participants were distressed or fatigued due to the research.

3.4.2 Data Collection at Home

Family members record videos using their phones or tablets in family settings. Each recording session lasts between 34 and 129 minutes. A total of 5 hours, 31 minutes, and 21 seconds of footage have been collected. These videos feature various activities (e.g., having dinner, chatting, getting a haircut) in the family setting. Typically, 10-15 minutes are recorded for each activity, totalling around 60 minutes of footage for each patient. After recording, the videos are uploaded to a Google Drive link. Suppose family members find it difficult to upload the video. In that case, they can bring it to the hospital during regular clinical visits and request assistance from healthcare professionals to upload the video.

Only participants who consent to the study are recorded in both settings. Any footage of individuals who have not consented is deleted. Family members were advised to stop recordings if they observed that participants were becoming distressed or fatigued due to the research.

3.4.3 Impact of Covid

Due to COVID-19 and the resulting lockdowns, the research student was not permitted to collect data in person, primarily due to concerns about the potential transmission of the virus to hospital patients, particularly those considered vulnerable (e.g., older individuals or those with comorbid chronic conditions). As a result, participant recruitment was primarily conducted online, limiting direct engagement and complicating various ethical considerations.

3.5 Data Management

After recording, all raw video recordings will be stored in the University of Sheffield Google Drive with limited access only to the PhD student and the two supervisors. Throughout the research process, both the raw and pseudonymized data have been accessible to the PhD student and the two supervisors.

Paper-based data (Mandarin version of the WAB (Kertesz, 1982) test results, consent forms, information sheets) was scanned and uploaded to the University of Sheffield Google Drive upon collection. After scanning, the paper-based originals were destroyed.

A backup of all data has been made on my own encrypted, password-protected laptop.

3.6 Data Process

This section outlines the process of editing the recorded data and the measures taken to pseudonymize it for ethical considerations.

3.6.1 Editing and Pseudonymizing

Participants were given choices regarding who could access their data and under what conditions through the consent forms. Option 1: Only the PhD student and the supervisors can access the data. Option 2: The PhD student, the supervisors, other researchers (e.g., at conferences), and students (e.g., for educational purposes) may view the data if faces are obscured through pixelation. Option 3: The PhD student, the supervisors, other researchers (e.g., at conferences), and students (e.g., for educational purposes) can view the data without pixilation.

Depending on the chosen option, all 36 videos (30 videos between healthcare professionals and PWA; 6 videos between significant others and PWA) are pseudonymized. Any identifiable information (e.g., names, locations, and other personal details) in the videos, audios, and transcriptions are pseudonymized as follows: Video pseudonymization was performed using filters in iMovie, as shown in Figure 2. For the audio, the process involved exporting the sound to Audacity, where any identifying details, such as names, were obscured with sound bleeping. The modified audio was then reimported into iMovie and synchronized with the pseudonymized video file, replacing the original audio track to create a fully pseudonymized video version. Additionally, all participants are pseudonymized in any written work.

Fig. 2

3.6.2 Data Transcription

Recordings in both settings are viewed by the research team. Three-line transcriptions are applied. The Chinese *pinyin* data will be in the first line, the word-by-word transcription in the second line, and the English translation in the third line. In each extract, we use arrows to direct the reader's attention to key phenomena in the conversation. Single arrows point to the key behaviours of the person with aphasia; double arrows highlight the responses of the non-aphasic interlocutors. Triple arrows point out emotional displays presented in the transcripts.

Transcription example:

	Mandarin Pinyin	Wo bu zhidao
	Word translation	*I N know*
→	**Translation**	**I don't know**

Nonverbal practices such as gazes and gestures are transcribed according to Laakso and Godt's (2016) transcription rules for interactions involving PWA.

Transcription example:

	Gaze		..F_____
	Mandarin Pinyin	WO W↑EN NI °LI°,	[NI SHUO↑ HUA °A°]
	Word translation	*I ask you PRT*	*you say word PRT*
→→	**Translation**	**I AM A↑SKING °LI°,**	**[SAY↑ SOMETHING °A°]**
	Gesture		[((*Fang turns to Lan*))]

Chapter 4 utilises Mondada's (2018) transcription methods to zoom in on participants' gaze shifts and body movements to show the range of multi-modal resources participants use to engage another participant.

Transcription example:

Mandarin pinyin	*ni kan yi xia - ni kan $	* &	wo	& zhe bian$
Word translation	*you look one down you look*		*I*	*this side*
Translation	***gaze - gaze**	$	*** &**	**my**	**& side$**
Spk's gesture	*taps Wan's shoulder	* &points herself&		
Rpt's gesture		$	gazes to N	$

3.7 Data Selection and Analysis

I began by reviewing recordings from home settings. When I identified phenomena that occurred regularly in this setting, I transcribed and built collections of these data using the Jefferson transcription system (Jefferson, 2004). As the analysis deepened, I added more transcription details based on my research focus. When necessary, I followed multimodal transcription conventions (Mondada, 2019) to capture specific behaviors, such as gaze shifts and body orientation. Following transcription, I compiled the data into Word documents, each labelled with a specific code corresponding to the identified theme. These documents and the associated audio or video clips were organized into separate folders for further observation and analysis.

I then reviewed the rest of my data (both the same person with a different interlocutor and other PWA in my data set) to see if this was a more generalized feature of interactions involving PWA. The same data analysis process was applied to this data group for further observation and analysis. Following the above procedure, I built a collection of three different phenomena occurring in healthcare and home settings. Through repeated examination of each transcript under the same phenomena, data for analysis were generated. This process was often conducted through discussions with my supervisors or data sessions with other researchers or PhD students.

Next, I will explain how each theme was developed and organized into analysis chapters. Chapter 4 is based on data I identified where a person with aphasia consistently needed attention requests from the healthcare professional to join or continue the conversation. It became evident that inattentiveness caused by aphasia may impact the PWA's participation in conversation. I then reviewed the rest of my data (both the same person with a different interlocutor and other PWA in my data set) to see if this was a more generalized feature of interactions involving PWA. I ultimately identified two PWA whose interlocutors do interactional work to request their attention during interactions. 25 instances where the nurse had to make extra efforts to engage the unresponsive PWA Wan were identified across six extracts. 31 attempts across 11 extracts where the therapist had to engage the other unresponsive person with aphasia Lun are also collected.

For both PWA, I also reviewed their conversations with their spouses. Due to their inattentiveness, these conversations were typically brief; in most recordings, they did not speak to each other, and no instances where the spouse made extra efforts to engage the PWA were found. However, I did observe that in another couple (aphasia speaker Mao and spouse Hua), the spouse made five attempts across three extracts to elicit the recipiency of the person with aphasia. The differences between the practices used by healthcare professionals and family members are further analyzed.

Chapter 5 presents a data analysis based on unmotivated observations of home recordings. In one couple (aphasia speaker Fang and spouse Lan), I observed that negative emotions regularly occurred during their conversations. After reviewing this couple's recordings, we found that these negative emotions predominantly occurred in test question sequences. Although this issue has been reported in previous literature

(e.g., Lock et al., 2001; Bauer & Auer, 2004), our data revealed something new: the spouse also exhibited negative emotions during these sequences.

I then examined conversations with other couples to determine whether this phenomenon occurred across participants. In another couple (aphasia speaker Mao and spouse Hua), I also found instances of negative emotions from both the person with aphasia and the spouse in test question sequences. This prompted me to examine the sequential positions in the conversation where these emotions surfaced, leading me to hypothesize that they might be linked to the spouse's interactional practices (or, more broadly, their interactional style) when managing an incorrect SPP response from the PWA.

Further, I analyzed conversations between these PWA and their therapists, focusing on whether negative emotions were present and identifying therapists' interactional strategies for eliciting correct answers after the PWA's incorrect SPP attempt.

In total, 112 examples of test questions posed by non-aphasic interlocutors (e.g., speech-language therapists or significant others) to PWA—68 in therapist-PWA interactions and 44 in interactions with significant others were identified. After refining the dataset to exclude cases where the PWA provided the correct answer on the first attempt, 88 examples (58 therapist-PWA interactions and 30 spouse-PWA interactions) remain.

Chapter 6 was developed from observations of a Wernicke's aphasia speaker, Jun, who shows signs of 'press of speech'. His father frequently begins speaking before Jun has finished his turn. 18 instances where the father spoke before Jun has completed his turn are identified. To explore this further, I also examined Jun's interactions with his therapist and noticed significant differences in how turn-taking was managed compared to his conversations with his father. In his sessions with the therapist, Jun dominated most of the conversation, although his responses often did not address the questions and were filled with empty words. It is observed that the therapist rarely intervened, stepping in only twice to complete Jun's turn. Instead, she responded with acknowledgements and change-of-state tokens, allowing Jun to continue speaking.

Next, I analyzed conversations involving another Wernicke's aphasia speaker, Jian, and his daughter. Unlike Jun, Jian did not dominate the conversation but often responded to his daughter's questions with nonanswers, usually perseverations or jargon. His daughter persisted with these responses, seeking clarification. Again, I compared this with Jian's interactions with his therapist and found that the conversational dynamics differed. The therapist tended to gloss over his nonanswer responses, using acknowledgements or change-of-state tokens to move the conversation along. I identified 11 instances of in-home conversations where family members responded to nonanswers and 18 instances in conversations with therapists where they managed these responses.

These differences in interactional styles between the family members and the therapists formed the basis of our exploration of how significant other healthcare professionals manage conversations with people with Wernicke's aphasia.

47 representative extracts from this dataset illustrate the recurring communicative phenomena in PWA conversations. The selection of these extracts was guided by the goal of ensuring that the findings could be generalized across the entire dataset.

3.8 Chapter Summary

This chapter has provided an overview of the procedures and methods used in the study. It has outlined the general research design, details the criteria and procedures for participant recruitment, and presented participant profiles. The chapter also introduces the data collection, storage, and management processes, followed by a description of data transcription and analysis.

Chapter 4 Interlocutors' Attention Requests in Interactions with Mandarin Speakers with Severe aphasia: Mobilizing Recipiency

4.1 Introduction

Goffman (1979) outlines a participation framework in which different co-present parties engage in conversation, adopting roles such as speaker, hearer, bystander, and others. Participants in interactions consciously orient themselves to how their actions and behaviors are perceived, interpreted, and responded to by others involved in the communication. They remain attentive to the reactions and engagement of their co-participants to ensure that their conduct is appropriately received and understood. When a speaker speaks, they are not only talking but also directing their speech toward a hearer. If the hearer does not take up the role of listenership, the speaker may undertake interactional work to adjust the participation framework by mobilizing the recipiency of the hearer. This can be done indirectly in typical conversation, such as phrasal restarts or pauses (Goodwin, 1981) or through body orientation (Heath, 1984). However, in interactions involving PWA, these requests tend to be more direct and are often combined with non-verbal cues and systematic adjustments in body orientation or spatial positioning (Heath, 1984; Stivers & Rossano, 2010; Antaki et al., 2020; Kendon, 1990; Cekaite & Mondada, 2021).

This chapter will examine how non-aphasic interlocutors, such as healthcare professionals (HCPs) and significant others (SOs), interact with physically co-present PWA who exhibit no or limited participation in interactions. Non-aphasic interlocutors often employ an 'attention request sequence' (see also Goodwin, 1981; Goodwin & Goodwin, 2004; Schegloff, 2007; Butler & Wilkinson, 2013) to establish and re-establish the participation framework in their interactions with the PWA. These attention-getting strategies are often complex, involving dual-action approaches (i.e., attention request utterances paired with non-verbal cues such as tapping or shaking to mobilize a response simultaneously). The attempts to get attention sometimes can take several turns and may require a range of other linguistic, embodied and material resources. The return of the PWA recipient's gaze or body orientation typically signals the speaker's initiation of a conversational sequence. In conversation, the absence of recipiency from a recipient is often accompanied by a lack of response (Ford & Stickle, 2012). In analyzing how non-aphasic interlocutors address the recipiency issues of the PWA, we will examine how they use various linguistic and embodied practices (e.g., gaze, shaking, tapping) to engage the PWA and elicit responses in conversation.

Section 4.1 introduces the chapter. Section 4.2 presents how healthcare professionals mobilize the recipiency of the PWA in interactions. Section 4.3 explores how significant others mobilize the recipiency of the PWA in interactions. Section 4.4 discusses the similarities and differences in the practices used to mobilize the recipiency of the PWA between healthcare professionals and significant others. Section 4.5 summarizes the chapter.

4.2 Mobilizing Recipiency in PWA-HCPs interactions

Two HCPs, one a speech-language therapist and the other a nurse, are observed using a range of verbal and non-verbal practices to mobilise the PWA's recipiency. The data indicate that both professionals use attention request sequences prior to initiating conversation (section 4.2.1) or prior to the first pair part (FPP) (section 4.2.2) to establish the participation framework. They also utilise various attention request practices to re-establish the participation framework when an FPP question does not elicit a second pair part (SPP) response (section 4.2.3) due to an absence of recipiency (Schegloff, 2007). Section 4.2 analyses how HCPs shape and reshape the participation framework by mobilising the PWA's recipiency in interaction.

4.2.1 Pre-Conversation Attention Request Sequence to Set Up Participation Framework in PWA-HCPs Interactions

Before the start of a conversation, a co-present but inactive participant may not be positioned to participate, and non-aphasic interlocutors may adapt by setting up the participation framework before the conversation. Verbal attention requests, which are frequently combined with embodied actions such as tapping or touching, are used to establish the participation framework in interactions with PWA.

The following analysis examines the range of linguistic and embodied resources used by interlocutors in interactions with PWA to set up a participation framework. Drawing on Schegloff's (2007) definition of summon-response sequences and pre-sequences, as well as Pillet-Shore's (2010) work on how participants coordinate physical presence and gaze to establish a participation framework, I refer to this practice as a 'pre-attention request sequence'. In this sequence, prior to the start of the base conversation, the HCP interlocutor engages a disengaged (i.e., displaying no recipiency) person with aphasia by requesting his gaze. This request, often a verbal directive, is typically paired with a non-verbal action such as tapping or touching to mobilize recipiency (Butler & Wilkinson, 2013). The sequence concludes when the PWA turn their gaze toward the co-present participant.

In Extract 1, a nurse (N) checks on a person with severe aphasia (Wan), who is also in the acute stage of another illness (exact details are unknown due to lack of access to medical records) during a ward inspection. Wan is lying on the bed with his eyes half-closed. While the participants are co-present, the person with aphasia is not ready to engage in conversation. Before initiating the conversation within the 'base sequence' (Schegloff, 2007: 49), the nurse works to establish the participation framework (Goodwin & Goodwin, 2004; Pillet-Shore, 2008). She engages the PWA by verbally requesting his gaze (line 1) and non-verbally prompting his response through tapping (line 1). Once Wan directs his gaze toward the nurse (line 2), the participation framework is set, and the conversation begins (line 4).

```
Extract 1 Wan and nurse 'gaze to me'
 →→     001   N:      *ni kan   yi xia - ni kan $ * &   wo         & zhe bian$
                      you look one down you look    I            this side
                      *gaze   -  gaze           $ * &   my         &     side$
                      *taps Wan's shoulder        * &points herself&

 →      002   Wan:                                $       gazes to N          $
```

003 N: ai:
PRT
ri:ght

004 [ni jiao shenme mingzi ya]
you call what name PRT
[what is your name ya]
[((*tap Wan's shoulder*))]

005 Wan: °Wan°
name
°Wan°

006 N: Wan
name
Wan

007 Wan: °en: °
PRT
°emm: °

008 N: [o (.) ni jia shi Jinan na de a]
PRT you home be Jian which NOM PRT
[oh (.)which part of Jinan your home is]
[((tap Wan's shoulder))]

009 Wan: (1.3)Zhonggong de
Zhonggong NOM
(1.3)Zhonggong

010 N: [Zhonggong de¿]
Zhonggong NOM
[Zhonggong¿]
[((tap Wan's shoulder))]

011 Wan: °en°
PRT
°emm°

012 N: o
PRT
oh

In Extract 1, before the nurse asks the person with aphasia his name, she first requests his attention using a verbal directive: *Gaze my side* (line 1). Simultaneously, she laminates this verbal request with nonverbal tapping (line 1) to prompt the person with aphasia, Wan, to mobilize his recipiency and potentially respond. Upon completing the request, Wan shifts his gaze toward the nurse (line 2), and the pre-sequence concludes with a positive assessment right from the nurse (line 3).

Following the completion of the pre-attention request sequence, the participation framework is set up (Goodwin & Goodwin, 2004). The nurse then initiates the conversation, or 'talk in the base sequence' (Schegloff, 2007: 49), by asking Wan for his name. Again, she combines the verbal question with non-verbal tapping to further mobilize a response. After Wan answers (line 5), the nurse continues with a confirmation-

seeking sequence (lines 6 to 7). The conversation then moves to another topic, focusing on the PWA's home address.

Wan's initial inattentiveness, indicated by his half-closed eyes before the conversation, prompts the nurse to begin with a pre-attention request sequence. In interacting with a disengaged participant, the nurse adapts her actions, using both verbal requests (*gaze my side*, line 1) and nonverbal behaviours such as *tapping* and *pointing* (line 1) to establish a participation framework necessary for initiating the conversation.

The following section will present a scenario in which the conversation has already begun, but one of the participants is not displaying readiness to engage. In this case, the non-aphasic interlocutor works to re-establish the participation framework before introducing the FPP.

4.2.2 Pre-FPP Attention Request Sequence to Set Up Participation Framework in PWA-HCPs Interactions

Sometimes, intended recipiency may be at issue even within an ongoing conversation (Schegloff, 2007; Rae, 2001). Non-aphasic interlocutors may need to re-establish the participation framework before producing the FPP of the base sequence (Schegloff, 2007). Various strategies are employed to engage PWA and ensure recipiency, including linguistic forms (e.g., summons as a separate action (Lerner, 2003; Schegloff, 2007), gaze requests (Goodwin, 1981), and combinations of summons and gaze requests (Lerner, 2003)); embodied practices (e.g., tapping, touching, shaking, beckoning gaze, standing up to lean forward); and material adjustments (e.g., moving a chair or reorienting body position) (Gan et al., 2023). In some instances, these efforts may require several attempts.

In this section, I will first present data where the non-aphasic interlocutor successfully gains the PWA's attention with a single attempt (Extracts 2 and 3). Then, I will move on to cases requiring multiple attempts (Extracts 4 and 5).

In Extract 2, the attention request occurs within one turn and is achieved through a combination of verbal requests and non-verbal tapping and touching. Before the attention request sequence, the therapist asks Lun a question (line 1). Lun gradually disengages from responding (line 2), showing minimal recipiency (line 4), and eventually becomes unresponsive (line 6). Before initiating a new FPP, the therapist issues an attention request (lines 7 to 9).

Extract 2 'how many kids do you have'

001	TR:	ta zuo shenme gongzuo
		he do what work
		what does he do
002	Lun:	(banshichu)
		office
		(office)
003	TR:	mei ting qing
		N listen clear
		didn't hear it clearly
004	Lun:	*** (1.9) * * (1.1) ***
		gazes at T *gazes away*

005 TR: zuo shenme gongzuo
do what work
what does he do

006 Lun: **(3.9) /T gazes at Lun; Lun gazes at mid-distance**

→ 007 TR: %Lun Lu↑n kan wo kan wo %
Lun Lun look I look I
%Lun Lu↑n gaze to me gaze to me%
%taps Lun's shoulder %

→ 008 %kan wo (.) Lu↑n ^zheli zheli zheli %
look I Lun here here here
%gaze to me (.) Lu↑n ^here here here%
%touches Lun's left face and ear %

→→ 009 **Lun: ^gazes to T**

010 TR: ni you ji ge haizi ya
you have several CL kid PRT
how many kids do you have ya

011 Lun: **( )**

012 TR: ji ge
several CL
how many

013 Lun: yi ge haizi
one CL kid
one kid

014 TR: nanhai nvhai
boy girl
boy or girl

In line 7, the therapist initiates engagement by tapping Lun on the shoulder to gain his attention. This action is followed by a verbal request for Lun's gaze, which is reinforced by the non-verbal tapping. The initial summon is intended to direct Lun's attention to the following relevant action, specifically looking at the therapist (line 7) (Lerner, 2003). However, Lun does not respond to this initial attempt. To further engage him, the therapist then issues a verbal directive gaze to me in line 8. When Lun does not shift his gaze, the therapist repeats the summons and provides a deictic directive (line 8) to focus Lun's gaze on the next point of reference. While making these verbal requests, the therapist also touches Lun's ear and head, using these non-verbal cues to elicit attention and adjust Lun's head orientation (Cekaite & Mondada, 2020). After the therapist completes the attention request actions, Lun turns his gaze toward the therapist (line 9). The base sequence starts (line 10) following the attention request sequence.

In this excerpt, before initiating a new sequence, the therapist first addresses the issue of recipiency with a disengaged person with aphasia by requesting their attention. Once the therapist secures his attention, they begin the FPP of the base sequence (Schegloff, 2007). In lines 7 and 8, during the process of gaining the

person with aphasia's attention, the therapist first uses a pre-positioned summon to establish recipiency and then continues to engage the person with aphasia's participation by verbally requesting his gaze (Lerner, 2003; Schegloff, 2007). To further engage the disengaged party, the therapist pairs these verbal summons or directives with non-verbal actions such as tapping the shoulder and touching his ear and head (lines 7 to 8). While verbally requesting and seeking recipiency, the therapist does a parallel job of non-verbally eliciting attention and recipiency in establishing the participation framework (Goodwin & Goodwin, 2004; Goffman, 1979).

Extract 3 exemplifies another attention request sequence to engage a disengaged person with aphasia before initiating a new FPP. In Extract 3, the request for attention also occurs within a single turn and is performed through verbal requests and non-verbal tapping.

Before the conversation begins, Wan is lying in bed and gazing at the ceiling while the nurse, seated near the bed, gazes at him. Wan does not display recipiency even though his co-presence indicates his availability to talk. Attention requests (lines 9 to 11) occur following his continued disengagement (lines 2, 4, 6, and 8) and before the nurse changes the topic with a new FPP (line 12).

Extract 3 'which factory did you work for'

	001	N:	[ni shi na ge-ai ni zai na ge changzi lai]
			you be which CL PRT you at which CL factory PRT
			[which you-which factory did you work for]
			[((tap Wan's shoulder))]
	002	Wan:	**(4.2)/N gazes at Wan, Wan gazes to mid-distance**
	003	N:	[shi bu shi jiu chang lai]
			be N be alcohol factory PRT
			[is it brewery]
			[((tap Wan's shoulder))]
	004		**(1.0)/ N gazes at Wan, Wan gazes to mid-distance**
	005	N:	[shi ba]
			be AUX
			[is it]
			[((tap Wan's shoulder))]
	006		**(2.4)/ N gazes at Wan, Wan gazes to mid-distance**
	007	N:	[shi bu shi yeye]
			be N be gradpa
			[is that right grandpa]
			[((tap Wan's shoulder))]
	008		**(2.9)/((Wan shifts gaze to the other side))**
→→	009	N:	& kan zhe bian yeye &
			look this side grandpa
			& look this side grandpa &
			& tap Wan's shoulder &
→	010	Wan:	**$ gazes to N $**

→→ 011 N: ai:
PRT
ri:ght

((N puts Wan's nasogatric tube aside))

012 N: ni gei wo shuo-gangcai gei ni da zhen teng bu teng a¿
you give I say just give you hit needle hurt N hurt PRT
you tell me-did the injection hurt¿

013 **(1.5)/N gazes to Wan, Wan gazes away**

014 N: teng ma
hurt AUX
does it hurt

015 **(1.8)/ N gazes to Wan, Wan gazes back but not to N**

016 teng bu teng a yeye
hurt N hurt PRT grandpa
hurt or not hurt grandpa

017 **(4.3)/someone is adjusting the camera**

018 N: yeye
grandpa
grandpa

019 **(2.4)/ N gazes to Wan, Wan half-closes eyes**

020 N: [ni kan]
you look
[look]
[((points Wan's wife))]

021 **(1.0) / Wan gazes to his wife**

022 N: zhe shi ni laoban ba
this be you patner AUX
is she your wife

023 Wan: **((nods head))**

024 N: o: ni laoban duo da le
PRT you partner many old PRT
o:h how old is your wife

025 Wan: liush:i <B>A sui
sixty eight age
sixt:y <EI>GHT years old

026 N: liushiba sui(.) o:
sixty eight age PRT
sixty eight (.) o:h

While recipiency remains an issue, the nurse initiates the sequence. After starting the sequence (line 1), Wan does not respond (line 2) despite the nurse's continued attempts to engage him (lines 3, 5, and 7). Wan

remains unresponsive (lines 4 and 6) and further disengages by turning his gaze away (line 8), prompting the nurse to shift her action and request his attention immediately.

In line 9, she uses verbal directives *to look at this side* and address the term *grandpa* to request Wan's attention. The directive *looks like this side* is what the recipient's *grandpa* is being summoned for. While verbally requesting and summoning, she also attempts to tap Wan's shoulder to mobilize his response and attention (Cekaite & Mondada, 2021). Following the request, Wan looks at the nurse (line 10). With a third position evaluation (line 11), the recipiency is established. After securing Wan's attention, the nurse initiates a new FPP (line 12). Despite this, Wan remains unresponsive. Following the nurse's question (line 12), Wan disengages again by looking away (line 13). Subsequent attempts to regain his attention (lines 14, 16, and 18) are unsuccessful. The nurse then directs Wan's gaze toward his wife (line 20), initiating a new sequence focused on discussing Wan's wife (line 21).

As seen in previous extracts, in Extract 3, the HCP uses an attention-request sequence to establish recipiency and potentially a participation framework with the person with aphasia. This attention-request sequence is designed with a verbal gaze request and summons, complemented by non-verbal tapping. While the verbal actions explicitly request the recipient's attention, the non-verbal cues implicitly mobilize a response (Butler & Wilkinson, 2013). The new FPP begins once the interactional work to engage the disengaged participant is completed.

Extract 4 is taken from a conversation between a therapist (TR) and another PWA (Lun). This talk occurs before the start of a testing task during a therapy session. Before the talk, Lun scratches his back and looks far away. The therapist is preparing the test pictures on a computer. In this extract, the HCP makes two attempts to co-construct the person with aphasia's recipiency and establish the participation framework. He not only verbally requests the PWA's gaze (line 2) but also monitors his participation by interrupting his multi-activity (line 5), holding his hands to redirect his focus.

```
Extract 4 'what's the first picture'
        001   TR:     ^ ((clear throat)) %hao hai  shi ha   %
                                         good still be PRT
                      ^ ((clear throat)) %ok still the same %
                                         %turning to Lun    %
              lun:    ^gazes far way->

 →→     002          % zheli ^kan   zhe kan  zhe jizhong jingli   ha %
                       here   look here look here focus attention PRT
                      % here  ^look here look here focus ha          %
                      % touches Lun's back and points to screen      %

 →      003   Lun:          ->^gazes to screen->


        004   TR:     zhe  +shi shenme (.) di    yi fu tu     shi shenme
                      This   be what     number one CL picture be what
                      what'+s this (.)what's the first picture
 →              lun:        +scratching back->

 →→     005          % ni gei wo shou           %+
```

```
                 you give I hand
                % give me your hand        %+
                % stop Lun from scratching %
      lun:                                ->+

006             di      yi fu tu     shi shenme
                number one CL picture be what
                what's the first picture

007             (4.3)/Lun looks at the picture

008             di      yi fu tu      shi shenme^
                number one CL picture be what
                what's the first picture        ^
      lun:                                    ->^

009   Lun:      taozi
                peach
                peach

011   TR:       dui le
                right PRT
                right
```

In Extract 4, after setting up the task on the computer, the therapist turns to Lun and begins the sequence in line 1 with *Okay, still the same*. Upon turning to Lun, he finds Lun gazing far away (line 1). The next turn, which should typically position the FPP of a base sequence, is replaced with a verbal request for attention: *Here, look here, focus, ha* (line 2). Like the nurse in the previous extract, the therapist complements his verbal request with non-verbal actions. He touches Lun's right hand and points to the screen with his left hand (line 2). While the verbal request explicitly solicits Lun's attention, the non-verbal touch mobilises his attention and potentially elicits a response (Stivers & Rossano, 2010). The attention-request sequence concludes with Lun directing his gaze toward the screen (line 3). However, when the therapist asks the test question, *What is the first picture?* (line 4), Lun becomes engaged in a different activity by scratching his back (line 4). Although he is gazing at the screen, full recipiency is not established. To address this further lack of recipiency, the therapist continues the sequence by stopping Lun's multi-activity (i.e., scratching) (Mondada, 2014). This action is designed with a verbal directive, *give me your hand*, alongside non-verbal gestures (i.e., taking Lun's hand to stop him from scratching) (line 5).

Once Lun shows signs of recipiency, the therapist repeats the FPP (line 6). Lun's answer (line 9) is delayed by 4.3 seconds (line 7), but during this question-answer sequence, he demonstrates attentiveness and engagement (e.g., by looking at the picture and producing the target answer). The therapist produces a third position evaluation *right* (line 11), and the attention request sequence ends.

The person with aphasia's inattentiveness and disengaging action following the therapist's pre-telling lead to the therapist's request for attention. After getting the attention from the PWA, the therapist starts his 'talk in the base sequence' (Schegloff, 2007: 49). Establishing recipiency in this extract takes multiple attempts.

Extract 5 is another example where the nurse made several attempts to establish the participation framework.

The first round of pursuit for recipiency (line 5) was successful, with Wan shifting their gaze back to the nurse (line 6). However, when the nurse continued to pursue the same question (line 7), Wan disengaged again (line 8). The second round of pursuit occurred in lines 11 and 13, and when this failed, the nurse escalated by using a verbal request (line 19). Following this, Wan turned their gaze back to the nurse (line 20), and a new FPP was initiated.

Extract 5 'does washing hair comfortable'

	001	N:	jintian xi tou shufu ma
			today wash head comfortable AUX
			does washing your hair feel comfortable today
	002	Wan:	**(1.9)/they gaze each other**
	003	N:	shufu ma
			comfortable AUX
			is it comfortable
	004	Wan:	**$turns head away to the left side of his body$**
→→	005	N:	a¿ yeye
			PRT grandpa
			huh¿ grandpa
→	006	Wan:	**$ gazes twd N $**
	007	N:	shufu ma xi tou
			comfortable AUX wash head
			does washing hair comfortable
	008		**(2.1)/N gazes at Wan; Wan turns face to left forward**
	009	N:	shufu ma
			comfortable AUX
			is it comfortable
	010		**(5.5)/Wan gradually turns face back (but not gazing to N)**
→→	011		a¿ yeye
			PRT grandpa
			huh¿ grandpa
	012		**(1.2)/Wan turns face to the left side**
→→	013	N:	$yeye $
			grandpa
			$grandpa $
		wan:	$gazes left side$
	014		**(1.1)/ N gazes at Wan; Wan gazes left forward**
	015	N:	ni kan ni you bu gen wo shuo hua le
			you look you again N follow I say word PRT
			you see you do not talk to me again
	016		**(1.5)/ N gazes at Wan; Wan gazes left forward**

	017	N:	wo dui ni bu hao ma *I treat you N good AUX* **am I not nice to you**
	018		**(1.4)/ N gazes at Wan; Wan gazes left forward**
→→	019	N:	kan kan wo yeye (.) kan zhe bian *look look I grandpa look this side* **gaze to me grandpa(.) look at this side**
→	020	Wan:	**$ gazes to N $**
	021	N:	a:i *PRT* **yes**
	022		**(1.1)/Wan gazes nurse**
	023	N:	dui ya *right PRT* **right**
	024	N:	jintian zenme yang ganjue *today how manner feel* **how do you feel today**
	025		**(1.9)/Wan gazes at N then gazes away**
→→	026	N:	&$ nanshou ma¿ $& *uncomfortable AUX* **&$ uncomfortable¿ $&** **&leans fwd a bit further&**
→	027	Wan:	**$ gazes to N $**
	028		**(1.6)/gaze each other**
	029	N:	bu nan shou shi ba¿ *N hard bear be AUX* **not uncomfortable is it¿**
	030	N:	ni dian dian tou *you nod nod head* **nod your head**
	031	Wan:	**((nods head))**
	032	N:	o: *PRT* **oh:**

At the beginning of Extract 5, the nurse starts with a posture adapting to a lying-down recipient with the body leaning forward towards the PWA. In line 1, the nurse starts the sequence with a question that can be answered with yes/no or equivalent response (Raymond, 2003). In responding to the question, Wan looks at the nurse in line 2. Once the recipiency is established, the nurse asks the question again in line 3. However, in

response to the further pursuit, Wan withdraws his gaze and disengages from the conversation by turning his head away (line 4). When the recipiency is at issue, the nurse addresses Wan's response and attention with *huh?* and *Grandpa* (line 5) summon him and pursues recipiency by making a response relevant. Wan gazes back to the nurse in line 6, recipiency is re-established, and the nurse restarts her sequence by repeating her FPP in line 7. However, Wan disengages again (lines 8 and 10) despite various attempts to engage him, including pursuit and summons in line 11 and a separate summon in line 13. As Wan continues not to respond or display recipiency, the nurse jokes about his disengagement, attributing it to his unwillingness to talk (line 15) and suggesting that his reluctance is due to her not being nice to him (line 17). Again, Wan does not respond or show any attention (line 18).

The nurse then attempts to request Wan's attention once more. In line 19, she verbally requests his gaze and summons him. By line 20, Wan directs his gaze back to the nurse. The attention request sequence concludes with positive evaluations from the nurse in lines 21 and 23. With both parties gazing at each other, recipiency is well-established, and a new FPP begins in line 24. In the first 1.2 seconds of the next turn (line 25), although Wan initially gazes at the nurse, he looks away. The moment he gazes away, the nurse builds on her previous uncomfortable turn (line 26) faster. While speaking, her body leans closer to the person with aphasia (line 26). With all these practices employed, Wan directs his gaze back to the nurse (line 27). Recipiency is re-established. Conversation resumes at line 29. The sequence ends with Wan nodding his head.

Thus far, we have demonstrated how healthcare professionals use attention request sequences to establish participation frameworks before the start of a conversation and prior to the FPP to engage physically co-present but interactionally inactive persons with aphasia. These sequences involve various practices, including linguistic resources (e.g., verbal gaze requests, rephrasing questions, separate summons, turn-initial summons), haptic resources (e.g., tapping or touching to direct the PWA's attention, body movements), and materials such as moving chairs to manage the person with aphasia's disengagement (e.g., lack of recipiency, non-response).

In the following section, we will continue to explore this issue and discuss how healthcare professionals use various strategies to re-establish the participation framework and engage physically present but interactionally inactive PWA after an FPP in conversation.

4.2.3 Post-FPP Attention Request Sequence to Re-establish Participation Framework in PWA-HCPs Interactions

In PWA interactions, intended recipiency may be at issue following an FPP question (Schegloff, 2007; Rae, 2001). After an FPP question, a person with aphasia may disengage by not gazing at the speaker or remain nonresponsive despite maintaining mutual gaze. Healthcare professionals may use a range of verbal and non-verbal practices to mobilize the recipiency of the PWA. Once the recipiency is established, the healthcare professional may repeat the original FPP question. Extracts 6-9 will discuss this group of data. Since the resources for re-engaging a person with aphasia are more laborious than the practices described in the previous section, I will present the following extracts regarding the effort required to engage the PWA, from the least effortful to the most.

Extracts 6 and 7 represent cases where healthcare professionals primarily use summons and verbal gaze requests to elicit the PWA.

In Extract 6, the therapist is talking with a person with aphasia, Lun, about some possible tourist destinations that Lun might have visited. However, Lun does not display recipiency in response to this question (line 2). In the following extract, the therapist is seen establishing Lun's recipiency through separated summons (line 3), a verbal gaze request (line 5), and a combination of both (line 7). These verbal requests and summons are accompanied by laminated non-verbal actions (tapping in line 5, shaking in line 6, and touching in line 7) (Goffman, 1979).

Extract 6 'have you been to the lake'

	001	TR:	%qu mei qu guo Daming hu %
			go N go past Daming lake
			%have you been to Daming lake or not%
			%RH on Lun's shoulder %
		lun:	^ gaze at T ^
→	002	Lun:	**^(4.1)**
			^gazes down->
→→	003	TR:	%Lun¿
			name
			%Lun¿
			%slightly shakes Lun->
	004		**(0.4)%**
			->%
→→	005		%tai tou tai tou tai tou tai tou %
			Lift head lift head lift head lift head
			%lift head lift head lift head lift head%
			%taps on Lun's chest then shoulder %
→→	006		%(1.3) % (0.7)
		ther	%gazes at and shakes Lun%
→→	007	TR:	%Lu↑n ^tai tou %
			name lift head
			%Lu↑n ^lift head %
			%touches Lun's ear/head%
→	008	**Lun:**	**->^gazes to T**
	009	TR:	qu mei qu guo Daming hu
			go N go past Daming lake
			have you been to Daming lake or not
	010	Lun:	qu guo
			go past
			yes
	011	TR:	qu guo
			go past
			you've been to

012 Lun: **((nods head))**

013 TR: o qu guo
PRT go past
oh you've been to

014 TR: Baotu quan ne
Baotu spring AUX
how about Baotu spring

015 lun: qu guo
go past
yes

In line 1, the therapist asks Lun a question, and as he does so, Lun gazes toward him. Immediately after the therapist completes his question, Lun drops his gaze (line 2). A long silence follows the therapist's FPP question, during which Lun displays no recipiency and looks down, resulting in a breakdown of the participation framework.

From lines 3 to 7, the therapist redesigns his talk and uses various multimodal resources to adapt to Lun's averted gaze. He summons Lun by addressing Lun's name while slightly shaking him (line 3). This summon is a separate action designed for the recipient to display recipiency by verbally responding to or non-verbally turning towards the speaker (Lerner, 2003). However, Lun does not respond in the next turn (line 4), despite the therapist shaking to mobilise a response (Stivers & Rossano, 2010; Butler & Wilkinson, 2013). In line 6, the therapist continues to re-establish the participation framework (Goodwin & Goodwin, 2004) by verbally requesting Lun to *lift his head* and non-verbally tapping (a response-mobilising feature of turn-design) on his chest and shoulder. This is again followed by silence, during which the therapist gazes at Lun and continues to tap his shoulder to pursue a response from him (Rossi, 2014; Stivers & Rossano, 2010). Despite these efforts to re-establish the participation framework, Lun still looks down (line 7). In line 8, the therapist summons Lun in a rising intonation and verbally requests Lun's attention with the deontic strong directive (Stevanovic & Peräkylä, 2012) *to lift his head*. Meanwhile, he touches Lun's head to guide his embodied conduct by moving his head from a lower position to a higher one to establish mutual gazes (Merleau-Ponty, 2012). In line 9, Lun shifts his gaze to the therapist, recipiency is displayed, and the participation framework has been re-established. The therapist then repeats his FPP question (line 9), which is followed by a confirmation (line 10) from Lun. This is succeeded by a confirmation-seeking sequence (lines 11 to 12). The current sequence concludes, and the conversation progresses to the next topic.

In this extract, the resources employed by the therapist to engage the PWA operate within a 'contextual configuration' (Goodwin, 2000). These resources mutually elaborate on each other to achieve the social action of managing recipiency and establishing the participation framework. Once the participation framework is established, the original FPP is repeated to elicit a response.

Extract 7 features a conversation between the nurse and Wan during a small talk. Following the question posed (lines 1 to 2), Wan does not display recipiency (line 3). The nurse employs a range of verbal resources (separated summon in line 4; verbal gaze request in line 23) and non-verbal resources (tapping, e.g.,

line 4; gaze, e.g., line 3; and body movement, line 22) to address Wan's disengagement (e.g., inattentiveness and non-response) and to re-establish the participation framework.

Extarct 7 'when did you join the party'

	001	N:	& y±eye ± na yi nian ru de dang lai &
			grandpa which one year in NOM party PRT
			&gr±andpa ± when did you join the party &
			&taps Wan's shoulder &
		wan:	±turns head to middle ±
	002		&qian liang tian wo wen ni de&
			prior two day I ask you NOM
			&I asked you few days ago &
			&taps Wan's shoulder &
	003		**(2.9)/ NUR-R gazes at Wan, Wan gazes forward**
→→	004		& a¿ yeye &
			PRT grandpa
			& huh¿ grandpa &
			&taps Wan's shoulder&
	005		**(2.1)/ NUR-R gazes at Wan, Wan gazes forward**
	006		&zan shi bu shi qi ji nian ru de lai &
			we be N be seven which year in NOM PRT
			&didn't we join the party in the seventies&
			& taps Wan's shoulder &
	007	Wan:	**(1.9) ± nods head ±**
	008	N:	&qi ji nian lai &
			seven which year PRT
			&seventy what &
			& taps Wan's shoulder&
→	009		**(3.5) / NUR-R gazes at Wan, Wan gradually closes eyes**
→→	010	N:	& a¿ yeye &
			PRT grandpa
			& huh¿ grandpa &
			&taps Wan's shoulder&
	011		**(4.6)/ NUR-R gazes at Wan, Wan half closes eyes**
	012	N:	zan qi ji nian ru de dang lai
			we seven which year in NOM party AUX
			in seventy what year we joined the party
	013		**(4.4)/ NUR-R gazes at Wan, Wan half closes eyes**
	014	N:	bu jide le
			N remember PFV
			can't remeber
	015		**(2.7)/ NUR-R gazes at Wan, Wan half closes eyes**

	016	N:	hai jide ma *still remember AUX* **do you remeber**
	017		**(3.6)/ NUR-R gazes away then back, Wan opens eyes**
→→	018	N:	&yeye & *grandpa* **&grandpa &** &tap Wan's shoulder&
	019		**(1.6)/ NUR-R gazes at Wan, Wan gazes right FWD**
→→	020	N:	yeye *grandpa* **grandpa**
	021		**(0.8)**
→→	022	N:	**&stands up and leans twd Wan to make face to face contact->**
→→	023	N:	neng kanjian wo ba *can see I AUX* **can you see me**
→	024	Wan:	**(2.0) ± nods head ±**
	025	N:	o: neng shi ba *PRT can be AUX* **o:h you can right?**
	026	Wan:	°en° *PRT* **°emm°**
	027	N:	o wo gangcai wen ni na yi nian ru de dang *PRT I just ask you which one year in NOM party* **oh I just asked you when did you join the party**
	028		ni hai jide ma *you still remember AUX* **do you remeber**
	029	Wan:	**± shakes head ±**
	030	N:	bu jide le *N remember PFV* **can't remeber**

In this conversation, the nurse asks Wan a question she has posed before (lines 1 to 2). She designs the question with a turn-initial summon. Unlike a question designed without summon at the turn beginning place, this special turn design with a turn initial summon works to draw the recipient's attention to establish recipiency for the subsequent TCU (Lerner, 2003; Sidnell & Stivers, 2012).

As the summon begins, Wan turns his head from the left side to the middle (line 1). The nurse follows up her summon with the question, *When did you join the party?* Moreover, adds, I *asked you a few days ago*

(line 2), which may serve to legitimize Lun's epistemic access (Heritage, 2012) and thereby his right to answer this question (Stivers, 2011). Following the question (lines 1 to 2), Wan remains silent and displays no attention (he gazes forward) (line 3).

From lines 4 to 6, the nurse uses verbal and non-verbal resources to pursue Wan's recipiency and response. She starts her turn with *huh?* and builds on it with another summon (Schegloff, 2007) *Grandpa* while tapping Wan to mobilize his response. Wan does not respond in line 5. The nurse then rephrases her wh-question into a yes/no question (line 6), which Wan confirms by nodding his head (line 7).

The nurse continues by asking in which year specifically Wan joined the party (line 8), posing another information-seeking question. This question is co-produced with a response-invoking tap (Stivers & Rossano, 2010). In line 9, Wan does not respond and gradually closes his eyes (a sign of inattentiveness). A combination of *huh?* and summon *grandpa* is again employed to pursue Wan's response and recipiency in line 10. Like line 4, this turn is designed with a laminated tapping to mobilize a response (Stivers & Rossano, 2010). With Wan showing no signs of engagement (lack of response and lack of recipiency) (line 11), the nurse redesigns her question in line 12 *in seventy: What year did* ***we*** *join the party?* By selecting the personal reference, *we* instead of *you*, a 'familial effect' (Zhang & Shin, 2020:109) has been established. In line 13, Wan remains unresponsive and half-closes his eyes. The nurse accounts for this by stating, *can't remember* in line 14. Wan again does not respond and half-closes his eyes (line 15). In line 16, the nurse continues to pursue. Although Wan opens his eyes (line 17), he does not look at the nurse. The nurse summons Grandpa to get his attention as the recipiency is still an issue (Lerner, 2003). While Wan slightly shifts his gaze (line 19), he does not gaze at the nurse. The nurse follows with another summon (line 20), and after a short pause, she stands up and leans forward to make face-to-face contact with Wan. She then checks verbally. Can *you see me* to ensure that the participation framework is well-established? The attention request sequence concludes with Wan's confirmation (lines 24 and 26). Following establishing the participation framework, the nurse repeats her FPP question (line 27), which Wan then responds to (line 28). The conversation ends.

In this extract and the previous one, healthcare professionals manage PWA's inattentiveness and non-responsiveness in conversation by manipulating a range of verbal and non-verbal resources. The healthcare professional in this extract uses separated summons (Lerner, 2003), various question designs (e.g., questions with turn-initial summons, turn-continual increments, rephrased yes/no questions, and the interchange of personal reference from *you* to *we*), along with body movements (e.g., standing up and leaning toward Wan) and laminated tapping to obtain the person with aphasia's attention. Once the participation framework is re-established, the original FPP resumes to elicit a response from the person with aphasia.

In Extracts 8 and 9, engaging the PWA's participation in the conversation involves not only verbal directives and summons but also nonverbal body movements, the use of materials such as chairs, and additional resources like nonverbal beckoning.

In Extract 8, the therapist reviews the greeting practices of the person with aphasia, Lun. Before the conversation begins, the therapist finishes his work on the computer (in front of both). Lun is gazing downward in the direction of the keyboard. The therapist starts a question (line 1) and adjusts Lun's chair to manage the

participation framework while asking the question (line 3). Despite this, Lun displays no recipiency (line 4). In the subsequent interaction, the therapist moves the chair closer (line 6), leans forward (line 8), and uses verbal summons and gaze requests (lines 10 and 12) to re-engage him in the conversation. These efforts are sometimes combined with touching (line 8), patting (line 10), or shaking (lines 11 and 12) to mobilize a response from Lun. In line 13, Lun directs his gaze to the therapist, who initiates the original FPP (line 14).

Extract 8 'how to greet'

	001	TR:	% jianmian le yao shuo shenme %
			meeting PFV want say what
			%what do people say when they meet each other%
			% taps Lun's arm %
	002		**(.)**
→→	003		%a¿ zan liang ge ^+jianmian le %
			PRT we two CL meeting PFV
			%huh¿ we two ^+meet each other now%
			% adjusts Lun's chair twd himself %
→	004		**(0.8)/Lun gazes FWD and clears throat**
	005	TR:	jianmian le yao shuo shenme zenme da zhaohu
			meeting PFV want say what how hit greet
			how to greet when meeting someone how to greet
→→	006	TR:	%moves chair closer twd Lun%
	007		**(1.1)/Lun gazes FWD**
→→	008	TR:	%zenme da zhaohu %
			how hit greet
			%how to greet %
			%touches Lun's back and slightly leans fwd%
	009		**(0.9)/Lun gazes FWD**
→→	010	TR:	L↑UN kan wo %zh↑eli %
			name look I here
			L↑UN gaze to me %he↑re %
			%pats Lun's shoulder%
→→	011		**% (0.9) %**
		tr:	%shakes Lun's shoulder slightly%
→→	012	TR:	% Lu↑n %
			name
			% Lu↑n %
			% shakes Lun's shoulder %
→	013	**Lun:**	**^ gazes twd T ^**
	014	TR:	NI HAO
			you good
			HELLO

	015	Lun:	°ni° hao *you good* **°he°llo**
	016	TR:	a da sheng dian chongfu yi bian *PRT big voice point repeat one CL* **yes a bit louder repeat one time**
	017	Lun:	ni hao *you good* **hello**
	018	TR:	a chongfu *PRT repeat* **yes repeat**
	019		**(2.4)/ TR gazes Lun, Lun gazes twd screen**

	020	TR:	chonfu
			repeat
			repeat

	021	Lun:	**(0.5)**
→→	022	TR:	zhe >li< %>zhe< >zhe< >zhe< >zhe< kan wo % *here here here here here look I* **he>re< %>here< >here< >here< >here gaze to me%** %beckon Lun's gaze %
→→	023		%kan wo Lun kan wo ^Lun kan wo % *look I name look I name look I* **%gaze to me Lun gaze to me ^Lun gaze to me%** % taps Lun's shoulder %
→	024	**Lun:**	**->^gazes twd THER->**
	025	TR:	NI HAO *you good* **HELLO**
	026	Lun:	ni hao *you good* **hello**
	027	TR:	a *PRT* **ah**

In line 1, the therapist turns to Lun and asks a test question: *What do people say when they meet each other*? While speaking, he taps Lun's arm to address his inattentiveness (as Lun is gazing downward) and mobilize his response (Bergnehr & Cekaite, 2020; Stivers & Rossano, 2010). As Lun does not respond (line 2), the therapist continues to build on his turn with a pursuit, saying *huh?* (line 3), he then re-describes the contextual background, stating that *we two meet* (line 3) to pursue Lun's engagement further. While doing this, the therapist also works to re-establish the participation framework by moving Lun's chair to make face-to-face contact. In line 3, where a response should be due, Lun still gazes downward and does not respond. Since

Lun neither displays any recipiency nor provides any response, the therapist works on both aspects in the following talk. He repeats the question (line 5) to pursue the response and moves closer to Lun (line 6) to re-establish the participation framework. However, Lun continues to gaze forward (line 7). In line 8, the therapist again purses the response with a question, laminated with a non-verbal touch while leaning forward. This attempt fails to engage Lun's participation in the conversation (line 9). In line 10, the therapist focuses solely on adjusting the participation framework. He summons Lun with a rising intonation and uses verbal directives to request his gaze. These verbal productions are again accompanied by non-verbal tapping (line 10) and shaking (line 11) to address Lun's inattentiveness. As the recipiency is still in doubt, the therapist further summons Lun (line 12) to mobilize his intended recipiency. At this point, Lun turns his gaze to the therapist (line 13). Recipiency is displayed, and the participation framework is well-established. In line 14, the therapist starts the FPP of a modelling sequence (Lindsay & Wilkinson, 1999), which is followed by a repetition from Lun. However, as the conversation progresses, Lun disengages from responding again (lines 19 and 21). To re-engage Lun, the therapist requests his attention again using verbal directives and non-verbal embodiments (beckoning gestures and tapping on shoulders) (lines 22-23). As Lun turns his gaze to the therapist (line 24), the base sequence restarts (line 25) (Schegloff, 2007).

In Extract 9, the therapist works on the computer before Lun and himself. They both are gazing at the screen. While working, the therapist asks Lun a test question (line 1), but Lun neither responds (line 2) nor shows any recipiency (as he does not look at the therapist). To engage Lun, the therapist leans forward (line 8), prompting Lun to shift his gaze towards him (line 9). However, as the conversation continues, Lun disengages again (line 20). From lines 21 to 25, the therapist employs verbal gaze requests (lines 21, 25), touching (line 22), nonverbal body movements (line 23), and chair adjustments (line 25) to re-engage Lun. In line 26, Lun's gaze is directed at the therapist, who initiates the original FPP.

Extract 9 'say thanks to show gratitude'

001	TR:	bie ren bangzhu ni le yao shuo shenme
		other people help you PFV need say what
		what should you say if other people help you
002		**(3.6)/Lun gazes screen, T clicks mouse**
003	TR:	bie ren bangzhu ni le yao shuo shenme
		other people help you PFV need say what
		what should you say if other people help you
004		**(1.0)/TR turns gaze TWDs Lun; Lun gazes at screen**
005	TR:	bie ren bangzhu ni le
		other people help you PFV
		other people helped you
006		**(3.0)/Lun gazes at screen, T clicks mouse**
007	TR:	%((clear throat))(1.5) ni kan ni zhan bu
		you look you stand N
		%((clear throat))(1.5) you see when you
		% holds Lun's shoulder ->

→→ 008 TR: qi lai de shihou ^%bie ren fu le ni yi xia
up come NOM when othe people carry PFV you one down
couldn't stand ^%other people gave you a hand
^%leans body towards Lun ->

→ 009 Lun: **^ gazes twd T ->**

010 TR: ni zhan qi lai le bu hui zou lu bie ren
you stand up come PFV N can walk path other people
you stand up other people help you to walk

011 fu zhe ni zou bie ren bangzhu ni de shihou
carry AUX you walk other people help you NOM when
(if you)are not able to walk when they give you a hand

012 ni yao shuo shenme ganxie ni de shihou
you need say what gratitude you NOM when
what should you say show gratitude to you

013 TR: -ganxie bie ren zenme shuo
gratitude other people how say
-show gratitude to others how to say

014 **(2.8)/gazes each other**

015 TR: yao shuo shenme XIEXIE
need say what thanks
what to say THANKS

016 **(1.7)/gazes each other**

017 TR: XIEXIE dui ba? bie ren bangzhu ni le yao shuo@%%^XIEXIE
thanks right AUX other people help you PFV need say
THANKS right? if other people help you you'd say @%%^THANKS
->@
touches Lun's shoulder ->%
leans body towards Lun ->%
lun: ->^

→ 018 **(1.0)/Lun gazes screen**

019 TR: chongfu yi bian
repeat one CL
repeat

→ 020 **(4.6)/therapist turns to click computer; Lun gazes screen**

→→ 021 TR: %Lun zheli %
name here
%Lun here %
%turn to Lun %

→→ 022 TR: **^% touches/holds Lun's both shoulders %**

→→ 023 **^% move body to face twd Lun %**

→ 024 Lun: **^ turns face twd T ->**

→→ 025 TR: ((clear throat))% kan wo ha kan wo %
look I PRT look I
((clear throat))% gaze to me gaze to me %
%adjust Lun's chair to seek mutual gaze %

→ 026 **(1.6)/Lun gazes to T**

027 bie ren bangzhu ni le yao shuo shenme
other people help you PFV need say what
what should you say if someone helped you

028 **(2.0)/gazes at each other**

029 TR: bie ren bangzhu ni le
other people help you PFV
other people helped you

030 **(1.0)^(12.5) ((therapist on his phone))**
^Lun drops gaze

→→ 031 TR: Lun ((tap Lun's thigh)) ((lean closer to Lun)) ^shuo hua
name say word
Lun ((tap Lun's thigh)) ((lean closer to Lun)) ^speak

→ 032 Lun: **^ gazes**

033 Lun shuo hua le^
name say word PFV
Lun speak ^

034 Lun: **twd T ^**

035 **(4.1)/therapist takes card, Lun gazes card**

036 TR: %lai xian ren ren zi%
come first read read character
%then let's read first %
% ((take cards)) %

While gazing at the screen (line 1), the therapist asks Lun a question. However, Lun does not respond (line 2). The therapist repeats his question in line 3. Again, the question is not being responded to. In line 4, the therapist directs his gaze to Lun and pursues his response with gaze (Goodwin, 1981; Cekaite & Mondada, 2020). Lun does not respond to this pursuit (line 6). Lun's non-response and continued lack of recipiency prompted the therapist to work on engaging his attention. The therapist in line 7 starts to mobilize Lun's recipiency through holding (i.e. sustained touching (see de Léon (1998); Cekaite (2016); see also Burdelski & Cekaite (2020)) Lun's shoulder to elicit his attention. As the therapist leans his body toward Lun, Lun's posture shifts accordingly to face the therapist. Mutual gaze is achieved, and the participation framework is established (line 9).

Following establishing the participation framework, the therapist pursued Lun's responses. However, these pursuits (lines 13 and 15) receive no responses (lines 14 and 16). As the therapist continues to pursue (lines 17 and 19), Lun drops his gaze and stops displaying recipiency (lines 18 and 20). The therapist orients

to Lun's inattentiveness and uses various verbal and non-verbal resources to elicit his recipiency from lines 21 to 25. He summons Lun and directs his gaze from the screen to himself (*here*) while adjusting his posture to face Lun. He then holds (i.e. sustained touching) both of Lun's shoulders to control (Burdelski & Cekaite, 2020) Lun's body movement and orientation, continuing to lean toward him. Although these practices enable them to face each other (line 24), further efforts are needed to achieve mutual gaze. In line 25, the therapist produces a verbal directive *gaze to me*. Meanwhile, he constantly adjusts Lun's chair to make postural adjustments for a better vision of Lun's gaze. Mutual gaze is established in line 26. After re-establishing recipiency, the therapist resumes pursuing responses by repeating his question (lines 27 and 29), but Lun again does not respond (lines 28 and 30). As a message comes in, the therapist turns to his phone, causing Lun to drop his gaze again in line 30. The therapist attempts once more to get Lun's attention in line 31, first summoning him to mobilize recipiency (Lerner, 2003) and then tapping (Mondada et al., 2021) Lun's thigh to direct his attention. He continues to adjust his posture to maintain face-to-face contact with Lun (Heath, 1984). As he leans forward, Lun's gaze inevitably shifts to his face (line 32). Following the establishment of recipiency, the therapist starts pursuing a response again, but as Lun remains unresponsive (line 34), the sequence is abandoned (lines 35 to 36).

In this extract, as in the previous ones, body movements, chair adjustments, verbal gaze requests, summons, and non-verbal tapping elicit and mobilize recipiency. Once recipiency is mobilized, the therapist then starts to pursue a response.

4.2.4 Summary of Mobilizing Recipiency in PWA-HCPs Interactions

Participants in interactions consciously orient and adapt to how their actions and behaviors are perceived, interpreted, and responded to by others. They remain attentive to the reactions and attention of their fellow participants, ensuring their conduct is appropriately received and understood (Heath, 1984). In HCP–PWA interactions, PWA may sometimes show inadequate attention in conversation. They may fail to engage due to a lack of attention or disengage because of linguistic difficulties (Code, 1989). Healthcare professionals often use attention-request sequences to mobilize the recipiency of the PWA in conversation. These turns, designed to request attention, typically involve two distinct actions: verbally requesting attention and non-verbally mobilizing a response.

In the extracts above, HCPs consistently monitor the participation of PWA. Before the start of a conversation, HCPs employ attention request sequences to set up a participation framework, preparing the copresent, inactive PWA for interaction (section 4.2.1). After the starting of a conversation but before the FPP of the base sequence, HCPs use attention request sequences to set up a participation framework for a copresent person with aphasia who is not displaying recipiency (e.g., gaze or body posture displays no orientation to co-participant). HCPs may also use attention-request sequences to establish the participation framework following an abandoned sequence and before initiating a new FPP (section 4.2.2). Lastly, HCPs may use a range of attention-request practices (e.g., a combination of linguistic strategies (e.g., verbal gaze requests, rephrased questions, separated summons, turn-initial summons), embodiments (e.g., tapping, touching, body

movements), and materials (e.g., moving chairs)) to manage the PWA's inattentiveness following an FPP and to re-establish the participation framework (section 4.2.3).

4.3 Mobilizing Recipiency in PWA-SOs Interactions

While these attention-request sequences mainly occur in healthcare settings, we found only one instance in a family conversation where the family CP requests the PWA's attention during everyday conversation at home. The data set is small, with three cases. Interestingly, all three attention-request sequences occur only in test question sequences (see Chapter 5 for more details).

In one case (Extract 10), where the PWA and his wife join a video call, the attention-request sequence establishes the participation framework. In the other cases (Extracts 11–12), attention-request sequences occur in positions where the SPP either misses or mismatches the FPP to re-establish the participation framework (Goodwin & Goodwin, 2004).

4.3.1 Attention Request Sequences to Set Up Participation Framework in PWA-SOs Interactions

In the following extract, spouse Hua sets up a participation framework for the person with aphasia, Mao. After Mao joined the conversation, Hua continued to monitor his engagement by adjusting the social distance between Mao and the people on the phone. Due to recording limitations, it is impossible to determine whether Mao is gazing at the people in the video. However, Mao's level of engagement can be assessed by observing whether he gazes at the phone or moves closer to or farther from it.

Before Extract 10, Hua and her sister were talking on the phone (the research student could not understand the dialect they were using, so no transcription was provided for this part of the conversation). Mao sat aside, looking forward (not toward Hua or the phone). Hua recruits Mao into the ongoing conversation with non-verbal tapping (line 1), and Mao responds by turning his body toward the phone (line 2). Throughout the conversation, Hua consistently monitors Mao's participation by adjusting the phone (line 3), assisting him in sitting up (line 9) and dragging him (line 11) to ensure that both of them are visible to the recipient in the video. Her continuous monitoring of Mao's participation is further evident in her adjustments to his body position (line 16).

Extract 10 'video call'

((Hua and her sister were talking on the phone, Mao sits aside))

→→	001	Hua:	**♦taps Mao's thigh♦**
→	002	Mao:	**δturns to the phoneδ**
→→	003	Hua:	**♦adjusts the phone to include Mao in the video♦**
	004	Hua:	da jie hao *big sister good* **hello elder sister**
	005		**(1.2)**

006 Mao: DA JIE HAO da hao °da hao° °°da hao°°
big sister good big good big good big good
hello elder sister (hello elder °hello elder° °°hello elder°°)

007 Hua: da jie
big sister
elder sister

008 Mao: ♦ni hao ni hao ni hao♦
you good you good you good
♦hello hello hello ♦
hua: ♦ holding the phone ♦

→ 009 Hua: ♦zuo qi lai zuo qi lai zuo qi lai♦
sit up come sit up come sit up come
♦sit up properly sit up sit up ♦
♦pulls Mao up ♦

010 Mao: δni hao ni hao ni hao ni hao δ
you good you good you good you good
δhello hello hello hello δ
δsit up δ

→→ 011 Hua: **♦move phone farther to include both in video♦**

012 ni shuo da jie hao
you say big sister good
you say hello elder sister

013 **(0.9)/Mao shakes his head.**

→→→ 014 Hua: ze! lai man man de shuo
tut come slow slow NOM talk
tut! try talk slowly

015 Mao: (1.1) **δ**YI GE BU XING yi ge bu xing °yi ge bu xing°**δ**
one is not ok one is not ok one is not ok
(1.1) δONE IS NOT OK one is not ok °one is not ok°δ
δmoves body closer to the phone δ

→→ 016 Hua: ♦ni ba renjia xiao hai xia pao le♦
you AUX other small kid scare run PRT
♦you gonna scared the kid away ♦
♦drags Mao back ♦

017 Hua: [ni hai
you still
[you still

018 Mao: [yi ge
one CL
[one is

019 Hua: ze! [♦wo gei ni shuo wo gei ni shuo ♦
tut I give you say I give you say
tut![♦let me tell you let me tell you♦

♦pats Mao's back ♦

020 Mao: [°bu xi(h)ng°
N ok
[°not o(h)k °

021 Hua: ni bie zhaoji hai yi ge xiao waisheng li
you N hurry still one CL small nephew AUX
don't be hurry little nephew is also there

In line 1, Hua briefly taps Mao to get his attention (Melino, 2021) and engage him in the conversation. Following the tapping, Mao turns toward the phone (line 2). Hua continues to adjust the participation framework by positioning the phone at a distance where Mao's upper body can be adequately captured (line 3). Once the participation framework is established, Hua initiates a greeting sequence. In line 3, she models for Mao (Lindsay & Wilkinson, 1999). After a brief delay, Mao repeats the modelled utterance in line 4. While his first repetition is correct, his subsequent production contains a semantic error (Law et al., 2015), omitting sister from the phrase hello elder sister (line 6). In the next turn, Hua corrects him. As Mao continues with the greeting (line 8), Hua works on maintaining his participation. She produces a strong, deontic directive (Stevanovic & Peräkylä, 2012) and repeats it twice, within one single turn, to instruct Mao to sit up. This verbal directive is co-produced by a non-verbal gesture to help Mao sit up from the sofa. While mumbling the greeting phrase (line 10), Mao moves forward and sits up as directed. Hua continues to adjust the participation framework to suit Mao's new position, moving the phone farther back to include them both in the video (line 11).

Once the participation framework is re-established, Hua reinitiates the greeting sequence (line 12) and models Mao again. In line 13, Mao refuses to repeat (as he shakes his head). Hua shows a negative stance towards his resistance and continues to pursue it in line 14. In line 15, Mao responds with stereotypical speech, moving closer to the phone and raising his voice. Hua verbally addresses Mao's socially inappropriate response while adjusting his position to re-establish the participation framework in line 16. After this, Hua initiates another sequence (line 17), coinciding with Mao's stereotypical speech (line 18). Due to the overlap, both turns are abandoned. Hua then begins a new sequence in line 19.

Unlike HCPs, who use explicit attention requests (Extracts 1 to 9) to engage a disengaged PWA, Hua employs deontically strong directives (sometimes embedded with negative emotion displays) (line 14) to prompt a response or engage Mao's participation. She also highlights the negative consequences of the PWA's improper engagement (line 16). Another distinction between therapists and spouses in engaging a PWA is that resistance (line 13) and displays of frustration (lines 14, 15, and 19) can occur in home interactions.

4.3.2 Attention Request Sequence to Re-establish Participation Framework in PWA-SOs Interaction

Like HCPs, SOs also establish participation frameworks during interactions. However, their instructions are not as straightforward as those of healthcare professionals, leading to multiple attempts to

request attention. Another noticeable feature of attention-request sequences at home is that SOs use complaint-laden utterances to request the PWA's attention.

Extract 11 is taken from a conversation between Hua and Mao as they sit facing each other near the fireplace, chatting. Before this conversation, Hua helped Mao fix his zipper and zip up his clothes. Hua then expects a thank you from Mao, but he fails to offer one. Mao displays no recipiency until Hua attempts to get his attention in lines 6 to 8. As in Extract 10, Hua also treats Mao's lack of recipiency in Extract 11 as problematic or blameworthy, challenging him with verbal questioning and nonverbal kicking in line 6.

Extract 11 'thanks wife'

	001	Hua:	♦ni shuo xie xie laopo♦
			you say thanks wife
			♦you say thanks wife ♦
			♦pouring tea ♦
	002		**(1.0)/Hua pours tea, Mao sits up and looks far away**
	003	Mao:	®laopo °laopo° ♦hh. (3.3)
			wife wife
			®wife °wife° ♦hh. (3.3)
			®he turns his head and gazes to the left side->
		hua:	♦finishes pouring tea and gazes at Mao->
	004	Hua:	°ni shuo° xiexie laopo
			you say thanks wife
			°you say° thanks wife
	005	Mao:	**(5.3)/looks to top left and whispers wife repeatedly**
→→	006	Hua:	♦wang na kan ♦ ne ni
			toward which look PRT you
			♦where are you looking♦ at
			♦kicks Mao's feet ♦
→	007	Mao:	**® gazes back ® (but not towards Hua)**
→→	008	Hua:	♦wang zher kan ♦
			toward here look
			♦ look here ♦
			♦points at herself♦
→	009	Mao:	® **nods head** ®
			®gazes to Hua ®
→→	010	Hua:	♦gen WO shuo ♦
			follow I say
			♦speak to ME ♦
			♦points at herself♦
	011	Mao:	**(2.8)/he whishpers something unclear to hear**
	012	Hua:	**((whispering FOR Mao 'I love you'))**

013 Mao: **((nods head and looks away then looks back))**

014 Hua: xiexie laopo
thanks wife
thanks wife

015 Mao: **((whisper 'thanks wife'))**

016 **[((wife drinks water))**

018 **[((Mao chews))**

019 **((Mao thumbs up))**

020 Hua: zhe shi shenme yisi
this be what meaning
what does this mean

In line 1, Hua models *thanks wife* for Mao and asks him to repeat. Her modelling includes a deontically strong directive, *you say*. In response, Mao shows no alignment; he sits up straight and gazes away at first (line 2), then starts to repeat *wife* (line 3). As he repeats, his voice is getting weaker. As he exhales (line 3), Hua sets her gaze upon him. For 3.3 seconds, Hua gazes at Mao while he looks to his left. Following the silence, Hua starts to pursue a response from Mao again, repeating her prior turn, *you say thanks wife* (line 4), but Mao does not respond. He still looks upwards to the left, a clear sign of not displaying any recipiency. In the next few turns, Hua begins to work on engaging his attention.

Very different from a therapist who would have utilized a verbal request such as "gaze at me" (see Extracts 1 to 9), Hua produces an utterance to get his attention by blaming Mao. She questions him, *where are you looking at*, a question designed not for information but to challenge the recipient's actions (Koshik, 2003). This utterance is accompanied by a nonverbal action that, while similar to the therapist's tapping or touching, takes the form of gentle kicking—an action typically classified as violent (Heath, 1984; Stokoe, 2006)—to mobilize recipiency from Mao (Butler & Wilkinson, 2013). In the next turn, Mao gazes back to the centre but not directly at Hua. Hua then continues to pursue Mao's visible display of hearing by directing his gaze to herself with the directive *look here* while *pointing at herself* (line 8). Mao responds by gazing at her accordingly in line 9. Following Mao's gaze, Hua makes a post-action comment. She pedagogically tells Mao in line 10 with another directive *to talk to ME*, emphasizing *ME*, while pointing to herself, implying that she is the one Mao should gaze at and talk to. As Mao displays his recipiency with proper 'listenership' (Goffman, 1979; Ford & Stickle, 2012), the sequence resumes in lines 14 and 15.

In conversation, the recipient typically takes the role of an attentive hearer, for example, by showing visible displays of hearing (Ford & Stickle, 2012: 12). In Extract 11, following an FPP from Hua, Mao does not display recipiency in the next turn; although he repeats the word *wife*, he does not turn his gaze to the speaker (lines 2 to 3). With this recipiency at issue, Hua further pursues without receiving any response, potentially triggering the sequence to engage Mao in the conversation. Hua's practices in pursuing 'displayed recipiency' are deontically strong (lines 1 and 4) and emotionally negative (lines 6); she treats Mao's behaviour of not responding and not displaying recipiency as blameworthy. In this conversation, Hua engages Mao and monitors his participation, continuing to work on it with follow-up directives and pointing (lines 8 and 10).

Mao displays recipiency following Hua's verbal and multimodal instructions (line 14). The sequence then restarts and continues with Mao accomplishing the modelling in line 15.

Extract 12 is taken from a conversation between Hua, Mao, and a neighbour (Das). Before line 21, the conversation has been ongoing for a while, with Hua testing Mao and asking Mao to pass the dates to Das to eat (for the full transcript, see Chapter 5). In this extract, spouse Hua engages in various interactional work to pursue Mao's response and address his displays of recipiency. As the pursuit intensifies, Mao disengages from the conversation (line 36). In the next turn, Hua pats him (line 37) to regain his attention and engage him in the conversation (line 38).

Extract 12 'say dates'

	001	Hua:	♦zhe shi sha ya ♦ **♦what is this YA ♦** ♦leans forward to take dates from table♦
			lines 2 to 20 are omitted
	021	Hua:	♦ni shuo ZAO ♦ *you say date* **♦you say DATES ♦** ♦gives the date to Mao♦
	022		**(1.7)/Mao takes the date and looks at the date**
	023	Hua:	chi: za:o *eat data* **ea:t da:tes**
	024	Mao:	a yi ge bu x[ing *PRT one CL N ok* **ah one is not o[k**
→	025	Hua:	[♦ze! ♦shuo ni shuo chi: za:o *tut say you say eat date* **[♦tut! ♦ you say ea:t da:tes** [♦pats Mao's knee♦
→	026	Mao:	°ai dui dui dui ° *PRT right right right* **°yes right right right°**
	027	Hua:	ni shuo ZAO *you say date* **you say DATES**
	028	Mao:	**(1.0)/puts the date near mouth and pretends eating**
→→	029	Hua:	ze! ni ♦SH:uo ♦ *tut you say* **tut! you ♦SA:y ♦** **♦punches Mao's knee♦**
→	030	Mao:	**δ ah ah ah δ**

δturns to Hua and vocalizes unintelligible speechesδ

031 Hua: ZA:O:
date
DA:T:ES

032 Mao: **(0.6) δ yi ge bu xing yi ge δ=**
one CL N ok one CL
(0.6) δ yi ge bu xing yi ge δ=
δ looks at dates δ

033 Hua: =ni shuo za:o
you say date
=you say da:tes

034 **(0.8)/Mao whispers 'one is not ok'**

035 Hua: ni shu-Shu:o
you say date
you sa-SA:y

→ 036 Mao: **(0.7)/turns to table and whispers 'one is not ok'**

→→ 037 Hua: **((pats Mao's leg))**

→ 038 Mao: **((turns to wife))**

039 Hua: ni shuo za:o
you say date
you say da:tes

040 Mao: **((throws the dates away and swears))**

041 **((everybody laughs))**

In line 21, the modelling sequence resumes. Hua gives the date to Mao while asking him to repeat the word *date*. In the next turn, Mao takes the date from Hua and looks at it. While Mao displays himself as an attentive hearer, he does not respond after his wife's turn (line 22). Hua then pursues by repeating the phrase *eat dates*, stretching each word. Again, Mao's turn disaligns with the modeling; he responds with stereotypical speech (line 24). This potentially irritates Hua; she tuts and angrily pats Mao's knee (line 25) to hold Mao accountable for not repeating her modelling. The same pattern continues from lines 26 to 29, with Hua persisting in her pursuit while Mao constantly displays disengagement. In line 29, Hua taps Mao's knee while strongly requesting him to say the word. This, however, does not successfully elicit the preferred response from Mao. As she continues pursuing, Mao drops his attention and looks elsewhere (line 36).

Immediately following Mao's withdrawal of gaze, Hua pats him on the arm to redirect his attention. In response to the pat, Mao turns his head to Hua and displays himself as a recipient (line 38). Once recipiency is established, Hua resumes the modelling sequence (line 39). In lines 40 and 41, Mao becomes frustrated with the sequence; he throws the dates away and swears. The sequence is then abandoned.

4.3.3 Summary of Mobilizing Recipiency in PWA-SOs Interactions

At home, the SO also requested PWA's attention to establish and re-establish a participation framework. Despite the small number of cases at home, specific differences between how HCPs and SOs request attention have been revealed in this analysis. Notably, SO's ways of securing the PWA's attention are sometimes emotionally loaded. In addition, their way of mobilizing a response is different as well. Unlike a therapist or a nurse who taps a PWA to mobilize a response, a spouse kicks the PWA's feet (Extract 11) or aggressively pats a PWA's thigh (Extract 12) to mobilize his response. Another observable difference is that the utterance (e.g., where are you looking) SO uses to request gaze is not as direct as HCPs (e.g., gaze to me). This perhaps results in the SO's multiple attempts to re-engage PWA.

Like HCPs in hospitals, SOs at home also request the PWA's attention to set up and re-establish a participation framework. Despite the small number of cases at home, specific differences between how HCPs and SOs request attention have emerged from this analysis. Notably, SOs' ways of securing the person with aphasia's attention are sometimes emotionally charged. Additionally, their methods of mobilizing a response differ. Unlike a therapist or nurse who taps a person with aphasia to elicit a response, a spouse may kick the person with aphasia's feet (Extract 11) or aggressively pat his thigh (Extract 12) to prompt a reaction.

4.4 Comparison of Mobilizing Recipiency Between PWA-HCPs and PWA-SOs Interactions

Face-to-face interaction requires the active involvement of all participants. Participants in interactions consciously orient and adapt to how their actions and behaviors are perceived, interpreted, and responded to by others. Prior to conversation, speakers display speakership by directing body orientations or gazes to the recipient (Goodwin, 1981) or producing pre-beginnings such as in-breaths and clearing throats (Schegloff, 1996), a hearer displays his attentive listenership (i.e., recipiency) by, for example, directing body orientation or gaze towards the speaker (Goodwin, 1981; Mondada, 2007). During the conversation, participants monitor and adapt to each other's actions and behaviors through adjustments in the body and talk.

This chapter has shown that in interactions involving PWA, some PWA may be physically present but not interactively participating in the conversation. They may show a lack of recipiency or responsiveness in interactions with HCPs and SOs, often due to issues related to aphasia. In response, a non-aphasic interlocutor may constantly monitor and adapt to their participation prior to the conversation or during its course.

This chapter has also examined practices HCPs and SOs used in mobilising the PWA's recipiency prior to and during the conversation. In both settings, the non-aphasic interlocutor uses a range of verbal and non-verbal resources to mobilise the recipiency of the PWA. They often need to adapt their standard communicative practices, typically used with non-aphasic individuals, to elicit recipiency and responsiveness from the PWA. For example, in typical conversations, a phrasal restart (Goodwin, 1981) might engage a potential participant. However, this action becomes more explicit in PWA interactions and often includes a gaze request sequence. This sequence may involve a directive from the non-aphasic interlocutor, such as a verbal cue or gesture indicating *gaze to me*, followed by a gaze shift from the PWA. Sometimes, a third-turn

evaluation occurs, where the interlocutor assesses the PWA's engagement based on their gaze direction. As demonstrated in the examples provided, successful engagement is achieved when the PWA directs their gaze toward the non-aphasic interlocutor. The effective engagement of the PWA is thus a collaborative effort.

While both HCPs and SOs collaboratively establish a participation framework with PWA, their attitudes toward the disengagement of PWA differ notably. HCPs, such as therapists and nurses, typically view the lack of engagement from PWA as a direct consequence of aphasia and, therefore, do not attribute accountability to the PWA for this disengagement. In contrast, SOs are more likely to treat the PWA's disengagement as a personal responsibility, often treating it as something blameworthy and holding the PWA accountable for their lack of participation.

Therefore, the practices they employ to establish participation frameworks and engage the participation of PWA are also different from each other. This can be seen from the variations in the interaction sequences between the PWA and SOs compared to those between the PWA and HCPs. In PWA-HCPs interactions, HCPs use attention-request sequences to establish the participation framework before the conversation or an FPP begins. They continually monitor and adapt to the PWA's participation during the conversation by employing various practices to reengage the PWA. These practices by HCPs are dually designed with verbal requests and non-verbal tapping or touching to mobilise responses to the request. Their verbal productions take the form of deontically strong directives. For example, a healthcare professional might use directives such as *gazing at me/my side* to request attention from the PWA. They also use summons (both separated and turn-initial summons) and follow-up questions to pursue responses and mobilise recipients. Their embodied resources to engage a person with aphasia are various (e.g., gaze, tap, touch, hold, etc.) and can be somewhat coercive. Except for adjusting their body orientations and gazes to establish speakership, HCPs also do the interactional work of physically guiding the PWA's body orientation by placing both hands on a person with aphasia's shoulders or steering their body orientation from one place to another, for example, turning the direction of his chair (Merleau-Ponty, 2012). They may also hold back the person with aphasia's multi-activities (e.g., scratching) to address their attention. These practices orient little to the PWA's autonomy in conversation participation (Stivers, 2022). However, the PWA show no resistance to these practices, and no frustration or other negative emotions are observed in these sequences.

The SOs, the other hand, treat the PWA's lack of recipiency accountable. They treat the lack of engagement as the PWA's fault. In PWA-SO interactions, the practices used by SOs to engage PWA are limited, less direct, aggressive, and emotionally loaded. These practices show in one way or another the SO's disaffiliation to the person with aphasia's disengagement in conversation. The SO seems to hold the 'idealisation' that a person with aphasia should engage like a person with competent interactional abilities. In managing the person with aphasia disengagement, the SO appears to treat the PWA as able to engage himself properly in a conversation.

When this recipiency is an issue, the spouse addresses it with deontically strong pursuits, sometimes embedded with opposing stances. She openly expresses disaffiliation toward the PWA's disengagement with tuts and considers his lack of recipiency as blameworthy. For example, in Extract 11, the spouse attracts Mao's

attention by complaining *where are you looking?*. She follows this with a post-attention-getting comment *speak to me* to further address Mao's inattentiveness in conversation. Her embodied practices in engaging Mao are somewhat 'aggressive.' For example, she kicks Mao in Extract 11 (Heath, 1984), forcefully pats him on the thigh and punches him on the knee (Berdelski & Cekaite, 2020) to direct his attention to the conversation in Extract 12.

4.5 Chapter Summary

This chapter has examined how HCPs and SOs mobilize the recipiency of the PWA prior to beginning and during interactions. Data have shown that non-aphasic interlocutors utilize a range of linguistic, embodied, and material practices to engage an inactive PWA to respond and display recipiency. While the practices used to pursue responses are mainly linguistic resources (e.g., summons, questions, directives), practices to establish recipiencies can include linguistic (e.g., gaze to me; where are you looking?), embodied (e.g., tap, pat, touch, kick), and material practices (e.g., phones, chairs). These practices, along with the shift of gaze or body orientation of the PWA, can form a sequence termed 'attention request sequence' in this chapter. This sequence works similarly to Gan et al.'s (2023) 'facilitation sequence' to promote completing certain sequential activities. Here, this sequence facilitates conversation between non-aphasic interlocutors and PWA by setting up and re-establishing the participation framework.

Chapter 5 Interlocutors' Managing of Test Question Sequences: The Progressivity Continuum

5.1 Introduction

Test questions, also known as 'known answer questions' (Schegloff, 2007), are asked by a questioner who already knows the answer. Unlike 'real' or information-seeking questions, where there is a knowledge disparity between the questioner and the answerer, test questions focus on whether the recipient can produce the correct answer. Test question is frequently used by professionals in institutional contexts where, for example, assessing or teaching is part of the institutional activity (e.g., teachers in classrooms (Mehan, 1979; Schegloff, 2007) and speech and language therapists in clinical contexts (Wilkinson, 2013; Merlino, 2018)). While test questions are generally restricted to specialised settings such as classrooms or clinics and are not generally used in everyday conversations between neurotypical adults, a striking feature of conversations between people with aphasia and significant others (e.g., spouses/partners/friends/grown-up children) is that at least some non-aphasic interlocutors address test questions to people with aphasia (Lock et al., 2001; Burch et al., 2002; Bauer & Kulke, 2004; Beeke et al, 2013; Barnes & Possemato, 2020). In our dataset of 5 hours 31 minutes 21 seconds video recordings of talks involving 6 PWA (each with a spouse and (or) another family member), we found 2 spouses (Fang's spouse Lan and Mao's spouse Hua) using test questions in their interaction with PWA. This is comparable to 3/10, as analysed in Bauer & Kulke's (2004) study on German speakers with aphasia.

Test question sequences display a particular sequential structure consisting primarily of three turns (Schegloff, 2007; Kevoe-Feldman & Robinson, 2012): test question (by the non-aphasic interlocutor)-answer attempt (by the PWA)-response to the answer attempt (by the non-aphasic interlocutor). The third turn response by the non-aphasic interlocutor has different sequential implications for what the PWA should do next, depending on whether the interlocutor treats the PWA's answer attempt as correct or not. If the interlocutor's response treats the answer attempt as correct, this ends the sequence. If it does not treat the answer attempt as correct, another answer attempt by the PWA is relevant.

When a PWA experiences difficulty answering a test question, a non-aphasic interlocutor has several options for conducting the test question sequence. In the literature review, I discussed how non-aphasic interlocutors may either (1) fully prioritise sequence progressivity or (2) adopt a middle-way approach by partially adhering to progressivity when conducting test question sequences. This chapter extends these approaches by incorporating SOs' practices, which retard progressivity by not providing any cues related to the answer. These three styles can be mapped onto a progressivity continuum, where SOs' practices occupy the leftmost end, as they hinder the progressivity of the testing activity. Therapists' practices (in this study and some of the previously reported literature) fall in the middle, as they partially adhere to progressivity by offering cues to guide the PWA's response. Previously reported practices (see Chapter 2) in which non-aphasic interlocutors provide the answer directly positioned on the rightmost end by fully prioritising progressivity.

I will present data from test question sequences between the PWA and HCPs in the following analysis. I will demonstrate that, during these sequences, the HCPs adopt a middle-way style; they neither provide the answer directly nor withhold it entirely but co-construct the answer with the PWA by offering cues, such as prompts or hints. I will then present data involving the two SOs of the same PWA who conduct test question sequences during the conversation. As I will show, both display a style where their practices seem to retard the progressivity of the test question sequences. They adopt a style that seems to retard the progressivity of the testing activity.

Section 5.1 introduces the chapter. Section 5.2 presents test question sequences between HCPs and PWA. Section 5.3 shows test question sequences between SOs and PWA. Section 5.4 will discuss the differences between PWA-HCPs test question sequences, and PWA-SOs test question sequences. Section 5.5. summarises the chapter.

5.2 Adhering Partially to Progressivity in PWA-HCPs Test Question Sequences

In the following extracts, I present test question sequences as part of assessment and therapy sessions between two HCPs (therapist (TR) and therapist (TB)) and two PWA (Fang and Mao). In these sequences, both HCPs co-construct the answer with the PWA by offering cues. The practices they employ suggest that this approach is commonly used by healthcare professionals, such as speech-language therapists, during test question sequences with PWA (Wilkinson, 2013; Merlino, 2018). As such, this may reflect less the development of a personal style (as seems to be the case with significant others of people with aphasia in section 5.3) and more a feature of how these professionals are being trained to conduct assessment and treatment activities with people with aphasia.

In the following data analysis, I first present test question sequences in which the HCPs provide the answer for the PWA after cueing and other practices fail to elicit the correct answer (section 5.2.1). Then, I will present extracts in which the HCPs abandon the sequence after the person with aphasia fails to provide an answer (section 5.2.2).

5.2.1 Adhering Partially to Progressivity: HCPs Cue and Provide Answers

Extracts 1 to 3 show test question sequences in which the non-aphasic interlocutors provide the answer for the PWA after cueing and other strategies fail to elicit a response. In this analysis, I will show how HCPs prioritize preference for the recipients to answer (Stivers & Robinson, 2006) by guiding the PWA to an answer step by step through cues and other practices (e.g., rejection) and how when these do not work, they change to prioritize progressivity by providing the answer.

Extract 1 illustrates how HCPs conduct test question sequences in a therapy session. In Extract 1, following an FPP test question, Fang produces an incorrect answer. From lines 5 to 18, TR employs a range of practices in scaffolding an answer with the person with aphasia, Fang. When these cues fail to elicit an answer from Fang, TR provides the answer for him (line 18).

Extract 1 'kiwi'

001 TR: [zhe ge shi shenme]
this CL be what
[what's this]
[*((points the picture of kiwi))*]

002 **(2.7)((*Fang looks at the picture*))**

003 Fang: [xiangjiao]
banana
[banana]
[((*points to the picture*))]

004 **(0.6)**

→→ 005 TR: bu dui
N right
incorrect

006 **(0.3)**

007 bu dui
N right
incorrect

008 **(2.1) ((*Fang looks at the picture*))**

→→ 009 TR: zhe ge bo kai, bo kai li mian shi lvse de
This CL peel open peel open in side be green NOM
if you peel this, it's green inside

010 **(2.1) ((*Fang lowers head and scratches back*))**

→→ 011 TR: hen ruan
very soft
very soft

012 **(3.3) ((*Fang stops scratching and looks at the picture*))**

013 TR: ↓xiang yi xia↓ renshi ma
think one down know AUX
↓think about it↓ do you know it,

014 Fang: ((*Fang points,frowns and smacks lip*)) [°°°aiyao°°°]
INJ
((*Fang points,frowns and smacks lip*)) [°°°aiyao°°°]
[((*rubs face*))]

015 TR: [bie zhaoji] (.) bie zhaoji,
N hurry *N hurry*
[there's no hurry] (.) there's no hurry,
[((*Fang keeps rubbing face*))]

→→ 016 TR: mihou↑tao, dui bu dui
kiwi correct N incorrect
ki↑wi, right or not

017 Fang: **((*shake head*))**

→→ 018 TR: bu dui ma? du↑i! jiao mihoutao,
N right AUX right call kiwi
not right? ri↑ght! it's kiwi,

019 Fang: **((*nod head*))**

020 TR: chongfu yi bian
repeat one CL
repeat

021 Fang: (mitao)
paraphasic sound
(kiti)

In this test question sequence, the therapist (TR) asks a question that proves difficult for the person with aphasia, Fang, to answer. When Fang displays difficulties (a delay in line 2 and an error in line 3) in responding, TR employs a range of eliciting practices (e.g., rejection, semantic cues, rephrasing questions) to guide Fang toward the answer in a hierarchical order. Each practice responds to Fang's actions (e.g., errors) or inactions (e.g., silence). When the error first occurs (line 3), rejection (line 5) is applied following a short pause. When Fang remains silent (line 8), semantic cues are provided (line 9). If one semantic cue proves ineffective (line 10), additional semantic cues are offered (line 11). As more semantic cues are applied, Fang redirects his attention to the picture (line 12). His subsequent attempts (line 14) indicate he still has difficulties answering. TR then embeds the answer into an alternative question (line 16) to seek Fang's confirmation. When this confirmation-seeking attempt fails, TR ultimately provides the answer for Fang (line 18). Fang agrees with the answer (line 19) and repeats it with a close approximation (line 21), bringing the sequence to an end.

In this sequence, following inadequate responses (lines 3, 10, and 12), the therapist rejects them (lines 5 and 7) and gives semantic cues (lines 9 and 11) to aid the person with aphasia in answering. Here, the answer to the test question has been co-constructed (i.e., partially 'authored': Goffman, 1979) by TR. The preference for progressivity (Schegloff, 2007) has been partially adhered to since the person with aphasia has physically produced (or 'animated': Goffman, 1981) the target word, but it has not been produced autonomously. Instead, TR provided it after the cueing practices failed.

Extracts 2 and 3 present two other examples of how a different therapist (TB) conducts test question sequences in language assessment.

As in Extract 1, TB in Extract 2 does not provide the answer for the person with aphasia, Mao, when he produces stereotypical speech responses (lines 3 and 5) to the test question. She prompts him with semantic

and phonemic cues (lines 6 to 7) to encourage him to attempt the answer himself. Note that Hua becomes involved in this sequence, but her contribution has little impact on the sequence.

Extract 2 'cup'

→→	001	TB:	Mao zhe shi gan ma, zhe shi shenme *Mao this be do what this be what* **Mao what am I doing what's this**
	002		Mao, ni neng shuo chu lai ma *Mao you can say out come AUX* **Mao can you say it**
	003	Mao:	yi ge bu xing yi ge bu xing yi ge bu xing *one CL N ok one CL N ok one CL N ok* **one is not ok one is not ok one is not ok**
	004	Hua:	shuo *say* **say**
	005	Mao:	bb /bao/ /bʌ/ *paraphasia* **paraphasia /bʌ/:**
→→	006	TB:	lai ni kan he shui de *come you see drink water AUX* **ok you see the thing to drink water**
→→	007		zhe jiao shenme lai /bei:/ this call what come */kʌ/* **what was it called /kʌ:/**
	008	Mao:	hao hao yi ge bu xing, yi ge bu xing *good good one CL N ok one CL N ok* **ok ok one is not ok one is not ok**
	009		bu xing, yi ge ⌈bu:: ⌉ xing *N ok one CL N ok* **not ok one is ⌈no::t⌉ ok**
→→	010	TB:	⌊bezi ⌋ *cup* **⌊ cup ⌋**
	011	Mao:	a dui dui dui dui dui yi ge bu::: xing *PRT right right right one CL N ok* **a right right right right one is no::t ok**
	012	Hua:	bu neng shuo bu xing *N can say N ok* **(you) can't say that**

In line 1, TB is testing Mao to say the word cup. While formulating her question, TB embeds semantic cues by directing Mao's attention to his action (drinking) and asking what is this? (referring to the cup) (lines 1 to 2). Following the test question, Mao responds with stereotypical speech (line 3). In line 4, the spouse joins

the sequence and facilitates Mao to say the word. Mao produces a paraphasic sound in line 5. Not receiving the expected answer, the therapist prompts with semantic cues (line 6). After the semantic cue, she repeats the question and then adds a phonemic cue /kʌ:/ (bei:) immediately following the question (line 7). However, Mao does not respond to her cues and continues to use stereotypical speech (lines 8 to 9). While he is speaking, TB provides the answer cup in line 10. Again, Mao does not acknowledge the answer and continues his stereotypical speech. The spouse intervenes in line 12 to prompt him to stop. The sequence is then abandoned, with the therapist discussing Mao's language situation and therapy plans with the spouse.

Similar to the previous extract, the answer is only provided when these cues fail to elicit a correct response from Mao. By cueing, the therapist adheres to the preference of the recipient of the question to provide the answer (Stivers & Robinson, 2006). As the cueing is unsuccessful, TB prioritises progressivity by providing the answer for the PWA.

In Extract 3, TB asks another test question. Again, following a non-answer response (line 2), TB does not immediately provide the target answer for Mao. Instead, she reformulates her question to embed the answer within it (line 7), prompting him to produce the answer himself.

Extract 3 'where do you live'

→→	001	TB:	ni jia zhu zai shenme difang . ni shuo chengshi ba *you home live at what place you say city AUX* **where do you live . just say the city**
	002	Mao:	(0.8) a [YAn::g] <NYA:>ng - e:↓ *PRT Yang Yang PRT* **(0.8) ah [Yan::g] <NYA:>ng - u:h↓**
	003	TB:	[ni bu yao ti xing ta ha] *you N need mention wake he AUX* **[don't answer for him]**
	004	Hua:	**zi!** ni: sh[uo: *tut you say* **tut! you: s[a:y**
	005	TB:	[na wo lai wen ni, *then I come ask you* **[then I ask you,**
	006	Mao:	en hao hao [hao *PRT good good good* **emm ok ok [ok**
→→	007	TB:	[ni jia shi zai Jinan hai shi zai Qihe *you home be at Jinan still be at Qihe* **[do you live in Jinan or Qihe**
	008	Mao:	DUI dui dui dui dui *right right right right right* **RIGHT right >right right right<**
	009	Hua:	°jia zai nali° *home at where* **°where is your home°**

→→ 010 TB: zai JINAN ma¿
at Jinan AUX
at JINAN¿

011 Mao: (0.7) a Y-Yinan Jinan [°Jinan°
PRT Jinan Jinan Jinan
(0.7) ah Y-Yinan Jinan [°Jinan°

012 Hua: [°°ni shuo°° <Qi:he>
you say Qihe
[°°you say°° <Qi:he>

013 Mao: <Ji>nan (eyi::::) ai dui
Jinan PRT right
<Ji>nan (eyi::::) yes right

014 Hua: Q[i::he]
Qihe
Q[i::he]

015 Mao: [°(Yihe)°] (Yi:he)(Yihe) >(Yihe)<
Qihe Qihe Qihe Qihe
[°(Yihe)°] (Yi:he)(Yihe) >(Yihe)<

016 Hua: bu shi shi Qi::he
N be be Qihe
no it is Qi::he

017 Mao: ah, (Yi:he) (Yihe) >(Yihe)<
PRT Qihe Qihe Qihe
ah, (Yi:he) (Yihe) >(Yihe)<

In line 1, TB asks where Mao lives and then reformulates the question with just say the city. Mao's response in line 2, his family name, does not address the question correctly. As he attempts to self-repair (Schegloff et al., 1977), his spouse, Hua, joins the interaction with a tut (line 4), indicating a negative emotional stance toward Mao's error. She then directs him to produce the answer in line 4. TB interrupts the spouse's intervention (line 4) by rephrasing the question, embedding the answer within an alternative question (lines 5 to 7). However, Mao responds with a receipting token in line 8, indicating an acknowledgement but not the expected answer (Raymond, 2003). In line 9, Hua attempts to intervene again. TB again sequentially deletes Hua's pursuit and continues her prompting by narrowing down to only one choice in a yes-no interrogative (line 10). Mao picks up this answer and acknowledges that he lives in Jinan (line 11). While Hua's involvement later impacts this sequence (she corrects Mao from Jinan to Qihe), it still shows a clear picture of how TB conducts the test question sequence in a logical and response-corresponding way to move forward the sequence.

In the extracts above, the HCPs engage more in co-constructing the answer (by providing the PWA with cues). They provide the answer for the PWA or abandon the sequence when co-construction fails. Due to these practices, progressivity is generally adhered to in the PWA-HCPs test question sequences.

5.2.2 Adhering Partially to Progressivity: HCPs Cue and Abandon Test Questions Sequences

Extract 4 illustrates how an HCP may abandon a sequence when the person with aphasia fails to produce the correct answer despite cues. In this extract, the HCP initially prioritizes the person with aphasia to answer the question. When the person with aphasia has difficulty providing the answer, the HCP adheres partially to progressivity by offering cues. When those cues do not work (lines 3, 5, and 7), the HCP abandons the sequence (line 9) and fully adheres to prioritizing progressivity.

Extract 4 'mountain'

	001	TR:	o hai you yi zuo shan shenme shan
			PRT still have one CL mountain what mountain
			oh there's also a mountain what mountain
	002	Fang:	**(5.0)/looks FWD, scratches head**
→→	003	TR:	Baotu quan nan mian hai you yi zuo shan
			Baotu spring south side still have one CL mountain
			there's a mountain in the southern side of Baotu spring
	004	Fang:	**(2.0)/looks down, scratches head**
→→	005	TR:	shenme shan shang mian you fo
			what mountain up side have buddha
			what mountain? there's buddha
	006	Fang:	**(2.0)/ looks down, scratches head**
→→	007	TR:	you fo xiang hen duo fo xiang shenme shan
			have buddha portrait very many buddha portrait what mountain
			there's buddha figure lots of buddha figures what mountain
	008	Fang:	**(2.0)/ looks down, scratches head**
→→	009	TR:	xiang bu qi lai le a hao wo zai wen ni jige wenti ha
			think N up come PRT good I again ask you several question
			can't think of it a okay I ask you some other questions

In Extract 4, following a test question (line 1), the person with aphasia, Fang, fails to provide an answer (line 2). The therapist (TR) in the third position cues by giving the geographical position of the mountain (line 3); as the PWA remains unresponsive (line 4), he prompts with more semantic information in the next turn by adding that *there's Buddha on the mountain* (line 5). This also offers part of the name of the mountain, *Thousand Budha Mountain*, based on a literal translation. Still getting no response (line 6), he gives more information on the Buddha by adding *lots of Buddha figures* (line 7) to remind the PWA part of the name *thousand*. Despite these cueing and semantic promptings (lines 3, 5, and 7), Fang fails to produce the answer. Unlike the spouse at home, who would hold Fang accountable and strike a negative stance towards his inability

to produce the answer, the therapist prioritizes progressivity and does not treat the PWA as blameworthy for not being able to produce the answer; he abandons the sequence and moves onto another topic (line 9).

In this extract, when there is a lack of response, the therapist does not provide the answer for the PWA immediately, nor does he treat the person with aphasia as fully responsible to provide the answer himself. He prompts by giving cues to help the person with aphasia verbally produce the answer. In this sense, the therapist again prioritizes both the person with aphasia in producing the answer and the progressivity of the test question sequence. When the PWA fails to maintain his autonomy in producing the answer, the therapist abandons the sequence to prioritize progressivity.

5.2.3 Summary of PWA-HCPs Test Question Sequences

The two HCPs in our data set who engage in test question sequences with the PWA adhere to both the progressivity of the sequence and the autonomy of the PWA. Certain practices by the healthcare professions could be recurrently produced in the third turn sequential slot following an incorrect answer response or nonresponses by the PWA. For example, the healthcare professionals might respond by providing semantic or phonemic cues (e.g., Extract 1, lines 5 to 11; Extract 2, line 7; Extract 4, lines 3 to 7) or prompting a further attempt through a clear rejection 'incorrect' (e.g., Extract 1, line 5) to help the PWA in producing the answer. These practices reject the problematic response and provide information about the target word, adhering partially to progressivity (in that it provides cues to help the PWA produce the answer) and partially to the PWA's autonomy (in that it prefers the PWA to produce the answer physically). The evidence so far shows that this is a style that health professionals, such as SLTs, regularly use in test question sequences with PWA (Wilkinson, 2013; Merlino, 2018). As such, this may reflect less the development of a personal style (as seems to be the case with significant others of people with aphasia) and more a feature of how these professionals are trained to carry out assessment and treatment activities with PWA.

5.3 Retarding Progressivity: PWA-SOs Test Question Sequences

Unlike HCPs, SOs in test question sequences prioritise the autonomy of the speakers with aphasia (Auer, 2014), i.e. they treat the person with aphasia as someone who should be able to act as an independent speaker and produce the answer himself. By acting in this way, these interlocutors attempt to adhere more to the preference that the recipient of the question (the person with aphasia) should produce an adequate answer (Stivers & Robinson, 2006).

5.3.1 Retarding Progressivity: Withholding Answers in PWA-SOs Test Question Sequences

Extracts 5 to 9 present test question sequences in which the spouses withhold both answers and cues related to those answers. The spouses treat the PWA as speakers who should 'author' and 'animate' (Goffman, 1979) the answer independently, without providing any prompts or cues, and hold them accountable for their inability to produce a response. This is often expressed through negative stances toward incorrect answers or

non-responses. I will present examples that range from those with longer pursuits and more intense negative emotions (Extracts 5 to 7) to cases with shorter pursuits and less intense emotions (Extracts 8 to 9).

Extract 5 represents a test question sequence in which the pursuit for the correct answer is the longest and the negative emotions displayed are the most intense. In this extract, Lan tests Fang to see where they live. Following the person with aphasia's incorrect answer attempts, Lan repeats her questions (lines 3, 18, and 26) or the error to the person with aphasia (lines 5, 21, and 32). She also uses practices (e.g., *huh?* in line 14; *say* in line 28) that do not provide clues to let the PWA answer the question. She highlights the person with aphasia's problems in answering through negative emotions (e.g., lines 5, 23, and 36).

Extract 5 'which floor are you on'

	001	Lan:	ni shi ji lou
			you be which floor
			which floor are you on
→	002	Fang:	(0.4) san danyuan (0.8)(yi w↑u ling yi)
			three unit one five zero one
			(0.4) unit three (0.8) (one fi↑ve zero one)
→→	003	Lan:	>ni °shi°< ji lou
			you be which floor
			which floor >°are° you on<
→	004	Fang:	(1.0) san danyuan
			three unit
			(1.0) unit three
→→	005	Lan:	SAN DANYUAN
			three unit
			UNIT THREE
	006		**(0.5)**
→→→	007		[SHANG CHUANGHU WAI TOU QU SHUIJIAO QU]
			up window out head go sleep go
			[GO SLEEP OUTSIDE OF THE WINDOW]
			[((*points outside of the window*))]
	008	Fang:	**((*turns head away*)) °huh°**
	009		**(5.1)((*Lan looks Fang, Fang looks forward, no mutual gaze*))**
			..F_____,,
→→→	010	Lan:	NI >ZHE °GE° LOU↑< NA °YOU° S↑AN DANYUAN = BU °SHI°
			you this CL buiding where have three unit N be
			WHERE °COMES° UNIT TH↑REE >IN °YOUR° BUILDING↑< = °AREN'T°
→→→	011		YI GE-YI GE DANYUAN-YI GE-LIANG GE DANYUAN A (.)
			one CL one CL unit one CL two CL unit PRT

THERE >ONE<-ONE UNIT->°one°<-TWO UNITS A (.)

→→→ 012 [yi danyuan, ↓er danyuan, ZAI ↑NALI SAN DANYUAN↓
one unit two unit at where three unit
[unit one, unit two↓, WHERE↑ COMES UNIT THREE↓
[((*Fang starts scratching head*))

013 **(5.0) ((*Fang brushes off something on his trousers*))**

→→ 014 Lan: [A?
PRT
[HUH?
[((*Fang brushes off something on his trousers*))

015 **(1.9)**

..F_____
→→ 016 Lan: WO W↑EN NI °LI°, [NI SHUO↑ HUA °A°]
I ask you PRT you say word PRT
I AM A↑SKING °LI°, [SAY↑ SOMETHING °A°]
[((*Fang turns to Lan*))]

017 Fang: >>(wo zhe bu shi<< shuo le ma)
I this N be say PFV AUX
>>(didn't I<< say)

018 Lan: ni shi ji danyuan a
you be which unit PRT
which unit are you in?

019 Fang: (0.8)wu danyuan
five unit
(0.8)unit five

020 **(1.0)**

021 Lan: WU DANYUAN
five unit
UNIT FIVE

022 **(1.0)**

F _____,,
→→→ 023 [GUN WAI TOU QU] WU DANYUAN
roll out head go five unit
[GO THE HELL AWAY] UNIT FIVE
[((*points outside*))]

024 Fang: **°hmph° °hmph°**
((*Fang turns away*))

025 **(.)**

..F_____
→→ 026 Lan: ni °shi° ji danyuan, shuo
you be which unit say

which unit °are° you in, say

027 **(1.0)**

→→ 028 SHUO
say
SAY

→ 029 Fang: °h san danyuan
three unit
°h unit three

→→ 030 Lan: a?
PRT
huh?

031 Fang: >°san°< danyuan
three unit
unit >°three°<

→→ 032 Lan: s↑an danyuan
three unit
unit th↑ree

033 Fang: **((*nods head*))**

F_____,,
→→→ 034 Lan: [gun chu qu hai shi]
roll out go still be
[again, go the hell away]
[((*points outside*))]

035 Fang: **((*turns away*))**

→→→ 036 Lan: [jin wanshang ba ni nong chu qu ha, san danyuan]
today night AUX you AUX out go AUX three unit
[throw you out tonight, unit three]
[((*Fang laughs bitterly*))]

037 **(2.9)((*Fang scratches back*))**

→→→ 038 Lan: GANG SHUO GEI NI ER DANYUAN, ER DANYUAN
just say give you two unit two unit
JUST TOLD YOU UNIT TWO UNIT TWO

039 Fang: [°er danyuan°]
two unit
[**°unit two°**]

→→→ 040 Lan: [ZENME] [WEISHENME] SHI SAN DANHYUAN WU DANYUAN NE
how why be three unit five unit PRT
[HOW] [WHY]IT'S UNIT THREE OR UNIT FIVE
[((*frowns*))]

In line 1, Lan asks Fang which floor are you on, to which Fang answers his unit and room number following a short delay. The answer is incorrect regarding both the topical agenda of the question (Stivers & Robinson, 2006) and the fact that they live in unit two. In response, Lan repeats the question in line 3, emphasising the word floor to signal Fang's previous answer as a problem to be repaired (Schegloff et al., 1977). Not recognising this, Fang repeats unit three in line 4. Tension escalates when Fang fails to acknowledge Lan's hint. Lan repeats Fang's loud answer, more obviously hinting (compared with the first hint by repeating the question) that there is a problem with it. She shouts at Fang, asking him to sleep outside the window (line 7). Being 'threatened', Fang also becomes emotional. He turns his head away and angrily exclaims huh! (line 8), a negative affect display to show annoyance (Chao, 1979). The conversation comes to a temporary halt.

Five seconds later, Lan resumes the pursuit with a question: *Where comes unit three* to challenge (Koshik, 2003) Fang's answer. It is produced in loudness and followed by an accounting *aren't there two units, unit one and unit two* (lines 10-12), to further evidence the challenge. The repair target has now been changed to the unit in which Fang lives. Meanwhile, the answer scope is narrowed to *unit one or two* (line 12). Fang does not respond to anything in line 13. Lan, in line 14, further pursues with HUH*?* in loudness, to which Fang still displays no orientation. Lan then upgrades the pursuit with a deontically strong directive: *I AM ASKING, SAY SOMETHING* in loudness to command Fang. While this further pursuit does not elicit an answer from Fang, it redirects his attention to the question (line 16). Once she has his attention, Lan repeats her question (line 18) to continue the inquiry. After a short pause, Fang responds with *unit five* (line 19), another error. The same patterns recur: Lan emphasises the error with increased volume (line 21), but Fang fails to recognise this hint. Lan then expresses her frustration by threatening to chase Fang out using a swear word (line 23). In response, Fang reciprocates this negative emotion. He turns away and exclaims another display of annoyance *Huh!*.

Following this second display of negative emotion, Lan remains determined to pursue. She continues the sequence by repeating the question in line 26. In line 27, Fang remains silent. Lan continues to pursue a few turns (lines 28, 30, 32), but Fang fails to produce the answer following each pursuit (lines 29, 31, and 33). In the sequential context where Fang fails to self-correct following multiple opportunities to do so, Lan displays negative emotion in lines 34 and 36. Fang reciprocates the negative emotion in line 35. The sequence ends with Lan jumping to the answer abruptly in line 38. Fang repeats the answer in line 39. In line 40, a post-answer comment, which takes the form of a why-interrogatives (Bolden & Robinson, 2011), is produced to hold Fang accountable for his error.

In this sequence, the practices employed by Lan do not provide any information about the target word for Fang; she treats Fang himself as the person to provide the answer to the question. When Fang fails to provide the answer, the spouse holds Fang accountable. This can be seen from the spouse's highlight of the PWA's inadequateness in answering through loudness (e.g., lines 5, 7, and 10), blaming (e.g., lines 7, 23, 34, and 36), and challenging (line 9) (Koshik, 2003). Even though she finally answers line 38, she produces the answer in

loudness with a complaint *just told you unit two*, hinting that the PWA should have epistemic access to the answer (Heritage, 2012) and should, therefore, answer for himself.

Extract 6 is taken from the conversation between another couple: the spouse, Hua, and the person with aphasia, Mao. It is a pursuit in which the spouse engages with practices that give no information about the target and displays negative emotions in multiple sequential positions.

In this sequence, Mao fails to provide an answer to the test question posed by Hua in line 1. In response to Mao's nonanswer responses, Hua repeats her question (lines 3, 7, and 9) and uses open class initiation of repair *huh* (line 5) to pursue Mao for an answer. When Mao fails to produce the answer despite these practices, Hua shows negative stances (e.g., (lines 7 and 9) towards it. Her negative stances hold Mao accountable for not being able to produce a correct answer to the question.

Extract 6 'steamed eggs'

	001	Hua:	[zhe shi shenme]
			this be what
			[what is this]
			[((*stirs steamed egg*))]
→	002	Mao:	°°yi ge buxing°° °°°°yi ge bu xing°°°°=
			one CL N ok one CL N ok
			°°one is not ok°° °°°°one is not ok°°°°=
→→	003	Hua:	=zhe shi shenme ya
			this be what PRT
			=what is this
	004		**(1.3)**
→→	005		a?
			PRT
			huh?
	006	Mao:	°yi ge b:u xing°
			one CL N ok
			°one is no:t ok°
→→→	007	Hua: →	zhe °shi° >shen:me< ↑FA::N
			this be what meal
			>wha:t< ↑MEA::L °is° it
	008		**(0.6)**
→→→	009	Hua: →	ZI! WO WEN NI ZHE SHI SHA
			tut I ask you this be what
			TUT! I AM ASKING YOU WHAT IS THIS

→→→ 010 Mao: YI GE BU XING YI GE BU XING YI GE BU XING
one CL N ok one CL N ok one CL N ok
ONE IS NOT OK ONE IS NOT OK ONE IS NO:T OK ((lazy tone))

011 Hua: <ji> <dan> <gao>
egg pie
<steamed> <egg>

012 Mao: °○°
PRT
°oh°

013 Hua: ai
PRT
yes

014 Mao: (yJI:Dan)
egg
(aE:Gg)

Before proceeding with this extract, we will first recap Extract 5. In Extract 5, Lan consistently repeats questions to elicit a correct response from Fang. When these attempts fail to find an answer, Lan expresses anger by repeating questions in loudness. A similar pattern occurs in this extract. While stirring the steamed egg, Hua asks *what is this* (line 1), to which Mao responds with non-aligning stereotypical speech (line 2). In response to Mao's misalignment, Hua repeats her question (line 3).

As the question does not provide additional clues, Mao remains unable to answer, resulting in silence in line 4. Receiving no response, Hua continues pursuing with *huh?* (line 5), to which Mao replies with another instance of stereotypical speech. In response, Hua prolongs her questions by stretching *wha:t* (*shenme*) and *MEA::L* (*FAN*) in loudness (line 7). Still getting no response in line 8, Hua's emotion escalates in line 9. She produces a negatively loaded *tut* at the turn beginning place (Heritage, 1998) and then a deontically strong statement (line 9), both in loudness. Mao reciprocates this negative emotion by speaking his stereotypical speech loudly and in a lazy and impatient tone. Prosodic features play a crucial role in displaying negative emotions in this extract. As continued attempts to elicit a response do not succeed and the interaction begins to exhibit tension, Hua shifts to providing the answer in line 11. The sequence concludes with Mao attempting to repeat the answer in line 14.

Extract 7 is another example in which the spouse gives no cues of the target answer and displays negative emotions when the person with aphasia fails to produce the answer. However, the negative emotions in this extract are less intense compared with the prior ones.

In Extract 7, Lan tests Fang on the name of the pillbox (line 1). Following an error produced by Fang (line 2), Lan attempts to elicit the correct answer by repeating the error (sometimes with a-final repeat to display a negative stance towards the error) (lines 3, 12, 14, and 18) or using open class repair *emm?* (line 7) or *huh?* (line 25). When these practices fail to bring out the correct production, the spouse uses a reversed polarity

question (RPQ) in loudness (lines 20, 22, and 23) to hold the PWA accountable for his failure to produce the correct answer.

Extract 7 'pills'

	001	Lan:	⌈zhe shi shenme⌉ ⌊na yao he⌋ *this be what* **⌈what's this⌉** **⌊holding the pillbox⌋**
→	002	Fang:	dianchi *battery* **battery**
→→	003	Lan:	zhe shi dianchi↓ *this be battery* **this is battery↓**
	004	Fang:	en *PRT* **emm**
→→	005	Lan:	⌈ zhe ge shi sha ⌉ ⌊ ((na qi dianchi))⌋ *this CL be what* **⌈what's this one ⌉** **⌊((take the battery))⌋**
	006	Fang:	(dian..) *batt..* **(batt-)**
→→	007	Lan:	en? *PRT* **emm?**
	008	Fang:	**((slight cough))**
	009	Lan:	⌈ zhe ge shi sha ⌉ ⌊ ((na qi dianchi))⌋ *this CL be what* **⌈what's this one ⌉** **⌊((take the battery))⌋**
	010	Lan:	zhe ge shi shenme dongxi a *this CL be what thing PRT* **what's this thing?**
	011	Fang:	(2.5) dianchi *battery* **(2.5) battery**
→→	012	Lan:	zhe shi dianchi ⌈ zhe ge ne ⌉ ⌊((zhi yao he))⌋ *this be battery this CL AUX*

this is battery⌈then how about this one⌉
⌊((point pillbox))⌋

013 Fang: ye shi dianchi
also be battery
also battery

→→ 014 Lan: zhe ge ye shi dianchi a
this CL also be battery PRT
this one is also battery A

015 zhe ge dianchi neng sai shang, neng
this CL battery can stuck up can
can this be stucked in, can it sort of-

016 shenme-he shi sha a zhe shi
what this be what PRT this be
-what's this

017 Fang: dianchi
battery
battery

→→ 018 Lan: zhe shi dianchi a
this be battery PRT
this is battery A

019 Fang: en
PRT
emm

→→→ 020 Lan: zhe BU SHI HE DE NA YAO A
this N be drink NOM that medicine PRT
ISN'T IT THE PILLS NEED TO BE TAKEN

021 **(1.2)**

→→→ 022 Lan: ZHE BU SHI XIE GANMAO YAO A
this N be some cold medicine PRT
AREN'T THOSE THE PILLS FOR COLD

→→→ 023 Lan: ZHE JIAO DIANCHI A
this call battery PRT
THESE ARE CALLED BATTERY A

024 **(1.0)**

→→ 025 Lan: a?
PRT
huh?

026 **(1.8)**

→→→ 027 ZHE SHI DIANCHI A
this be battery PRT
THIS IS BATTERY A

→ 028 Fang: bu shi
N be

no

029 Lan: zhe shi xie sha
this be some what
what are those

→ 030 Fang: yao
medicine
pills

→→→ 031 Lan: NI BU SHI SHUO ZHE SHI DIANCHI MA
you N be say this be battery AUX
DIDN'T YOU SAY THIS IS BATTERY

The test question sequence starts with Lan holding a pillbox and asking Fang *what this* is (line 1), to which Fang replies *that it is a battery* (line 2), an error. In response to this error, Lan does not reject it like the therapist does (Extract 1); she repeats the error with a falling intonation (line 3), giving the least information possible for Fang to realize his error. In line 4, Fang confirms it is a battery. Without correcting or explicitly reminding Fang that he is incorrect, Lan introduces a side sequence (Schegloff, 2000) (lines 5-11), during which she physically presents the battery to Fang for him to answer.

In line 12, Lan returns to the original sequence by bringing the pillbox into the scene and asking *how about this one?*. Fang also answers *battery* (line 13), the same error re-occurs. Lan responds to Fang with an A-suffixed error repeat (line 14) to show her negative stance towards the answer (Wu, 2006). This is followed by an RPQ (line 15) designed to challenge Fang's answer (Koshik, 2003). Lan starts another round of pursuits in lines 16 and 18. Fang again responds with the same error *battery* in lines 17 and 19. More negative emotions are displayed by loudness (lines 20 and 22). The sequence closes with Lan making a post-answer complaint in a loud voice: *DIDN'T YOU SAY THIS IS BATTERY.*

In Extracts 8 and 9, the pursuing sequence is shorter than the prior three extracts. However, the spouses hold the same 'ideology'. They treat the PWA as accountable if they cannot produce the answer themselves.

In Extract 8, in responding to Fang's difficulties in providing the answer (lines 2 and 4), Lan repeats questions (lines 3 and 11) and uses open class initiation of repair *huh* (lines 5, 9, and 14) alternatively to elicit the correct answer from Fang. Those practices, despite giving Fang chances to self-repair (Schegloff et al., 1977), provide no information to assist Fang in moving close to an answer. When Fang fails to produce the correct answer following rounds of pursuits, Lan treats it as blameworthy (Pomerantz, 2021) and displays a negative stance through loudness (lines 11, 18, and 22).

Extract 8 'what color is my shirt'

001 Lan: [wo zhe yifu shi shenme yanse]
I this clothes be what color
[what colour are my clothes]
[((*points her sweater in arm*))]

→ 002 Fang: **((*vocalizes a laughter syllable 'hah'*))**

→→ 003 Lan: >°shenme°< yan↑se de
what color NOM
>°what°< co↑lour

004 **(2.0)((*Fang touches Lan's clothes)) °hh***

→→ 005 Lan: ha?
PRT
huh?

006 **(0.2)**

007 Lan: zhe [shenme (yans↓)]=
this what color
this [what (colo↓-)]=

008 Fang: [( )(BA)]
unclear sound
[( ) (BA)]

→→ 009 Lan: =ha?
PRT
=huh?

010 Fang: (gebo)
arm
(arm)

→→→ 011 Lan: >wo< ZHIDAO↑ GEBO zhe shi shenme YANSE de yifu,
I know arm this be what color NOM clothes
>I< KNOW↑ ARM, what COLOUR are my clothes,

012 shenme [yanse de]
what color NOM
what [colour]

013 Fang: [nilong de]
nylon NOM
[nylon]

→→ 014 Lan: ha?
PRT
huh?

015 Fang: (ninou)
paraphasic sound
(ninou)

016 **(1.0) ((*Lan and Fang gaze at each other*))**
..___,,
017 NILONG
nylon
NYLON

→→→ 018 Lan: [ZHE °shi° SHENME <YANSE> de↓]
this be what color NOM
[WHAT °is° the <COLOR↓> ↓]
[((*points her sweater in the arm*))]

019 Fang: heise
black

	020	Lan:	hei de **black**
	021	Fang:	en *PRT* **emm**
→→→	022	Lan:	°a° hei de jiu °shi° hei de *PRT black AUX just be black AUX* **°ah° say BLACK if it °is° BLACK**
	023		>ye bu neng shuo< nilong↑ de *also N can say nylon AUX* **>you shouldn't say< nylon↑**

In line 1, Lan points to her arm and asks Fang the colour of her shirt, to which Fang responds with one-syllable laughter (line 2), indicating his possible difficulties in answering (Glenn, 2003; Wilkinson, 2007). Lan repeats the question in line 3. In line 4, Fang touches Lan's clothes and thinks silently. Lan then continues to pursue with *huh?* (line 5). This elicitation does not provide any information for Fang, and he still has difficulty producing the answer (line 6). Just about when Lan repeats her question (line 7), Fang gives an answer attempt (line 8), which is then clarified as *arm* (line 10), an error. Instead of rejecting the error, Lan challenges Fang by restating her epistemic stance loudly *I KNOW ARM* (line 11) (Stevanovic & Peräkylä, 2012). She then repeats the question with an emphasis on *COLOUR* to further elicit. In an overlap with Lan's repeat of *what colour* in line 12, Fang produces a new error *nylon* (the material of Lan's clothes) (line 13). Another repair initiation, *huh?*, was initiated by Lan. This, however, does not bring out the correct answer. As no progress is made despite Lan's pursuits, she becomes emotional and repeats her question loudly in line 18. Fang, in line 19, provides the correct answer *black*.

In this sequence, the spouse again treats the person with aphasia as the one who should provide the answer himself. She repeats questions (line 3, line 7, lines 11 to 12, and 18) and alternatively uses open class initiations of repair (lines 5, 9 and 14) to elicit correct answers from Fang. However, these practices provide no information for Fang to assist him in producing the correct answer. Despite efforts, the first 18 lines of the conversation barely move the sequence forward. The spouse holds Fang accountable, displays negative emotions (lines 11 and 18), and complains (line 22) when he fails to produce the answer.

Extract 9 features another test question following Lan scolding Fang for not being able to name the floor he lives on. In this instance, Lan creates a scenario where Fang gets lost, and someone who finds him is sending him back and asks for his building number.

In the following sequence, Lan repeats the error (line 5), comments on the error (line 7), and repeats the question (line 10) to pursue the correct production. Again, her practices provide no cues for the target answer. As Fang fails to produce the response (line 11), Lan jumps to the answer directly (line 12). She holds Fang accountable by displaying negative emotions in the sequence through loudness (e.g., lines 7, 9, and 12).

Extract 9 'which building do you live'

001 Lan: ni shi ji lou a song ni jia lai dehua
you be several building PRT send you home come if
which building do you live if they send you back asking

002 ni shi ji hao lou a ni shuo ni shi ji
you be several number building PRT you say you be which
what's the number of your building you say what's your

003 hao lou a
number building PRT
building number

→ 004 Fang: wu hao lou
five number building
building five

→→ 005 Lan: wu hao lou
five number building
building five

006 Fang: en
PRT
emm

→→ 007 Lan: ni YOU cheng WU hao lou la
you again become five number building AUX
you have changed it AGAIN into building FIVE la

008 Fang: **(.) ((awkward laughter))**

→→→ 009 Lan: wu hao lou zai da jin dong bian wu hao lou
five building at big very east side five building
building five is in the VERY EAST BUILDING FIVE

→→ 010 ni shi xianzai shi ji hao lou a zai zheli
you be now be several number buiding PRT at here
what's the number of your current building

011 **(4.0)/Fang scratches head**

→→→ 012 Lan: SAN SHI HAO LOU
three ten number building
BUILDING 30

013 Fang: san shi hao
Three ten number
building 30

014 Lan: ER DANYUAN
two unit
FLAT TWO

015 Fang: er dan /an/
two unit
flat two

016 Lan: shi wu ling yi

ten five zero one
FIFTEEN ZERO ONE

017 Fang: shi wu ling yi
ten five zero one
fifteen zero one

028 Lan: shuo hao le ha zan dei shenme ha
say good PFV PRT we must what PRT
we agreed on this now we should you know

019 ni yao shi zou diu le pao mihu le
you if walk lost PFV run lost PFV
if you got lost walked the wrong way

020 renjia wen ni ni shi ji hao lou a
other ask you you be which number building PRT
others ask you which building d'you live

021 Fang: san shi hao lou
three ten number building
building thirty

Following the test question (lines 1 to 3), Fang provides an incorrect answer. Lan repeats the error to indicate its problem (line 5). Not recognizing the implicit hint, Fang confirms his response in line 6. After Fang confirms this, Lan playfully complains to Fang, implicitly criticizing that he has again (not for the first time) changed (instead of saying that he is incorrect) it into building five (line 7), another hint that Fang's response is incorrect. In the next turn, following a short pause, Fang laughs awkwardly (line 8). Lan then comments on Fang's incorrect answer and pursues again by repeating her question (line 10). Despite commenting and pursuing, Lan does not explicitly point out that the response is incorrect, nor does she give any cues of the target answer. Fang is still not able to produce the answer in line 11. In line 12, Lan provides the answer for Fang in loudness. In eliciting the correct answer, she repeats (line 5) or comments on the error (line 7; line 9). She also repeats the question (line 10). Again, these practices do not provide clues to the target answer. When these practices fail to bring out the correct production, the spouse provides the answer in loudness. This negative stance strikes towards Fang's failure to produce the correct answer himself.

Thus far, we have examined how spouses may retard progressivity in answering a test question. In the next section, we will discuss cases where the spouse (Hua) holds progressivity to pursue a correct repeat from the PWA after the SOs have provided the answer.

5.3.2 Retarding progressivity: Pursuing Correct Repeats in PWA-SOs Test Question Sequences

Hua sometimes gives the answers directly to Mao, partly due to the lack of practice in eliciting the answers in granularity. In this case, the preference for the person with aphasia in providing the answer transfers to the preference for them to produce a correct answer. Suppose Mao is not able to produce the correct repeat.

In that case, the spouse displays a negative stance towards it, highlighting that the person with aphasia should be responsible for at least animating the answer.

Extracts 10 to 11 are test question sequences where the spouse 'authors' the answer by modelling it for the person with aphasia, Mao, to 'animate' (Goffman, 1979). Hua withholds the sequence progressivity by prompting Mao to repeat the answer correctly. When Mao fails to produce the correct repetition, Hua holds him accountable by displaying negative emotions in response to his unsuccessful attempt or lack of effort in 'animating' the answer.

In Extract 10, Mao produces an incorrect answer (line 2) for the test question (line 1). Hua corrects him in the next turn (line 3). The sequence then shifts focus from producing the correct answer to animating it. In lines 5, 7, and 10, the spouse withholds progressivity by asking Mao to physically 'animate' the correct answer. When Mao fails to produce the correct repeat (lines 4, 6, 8, and 9), the spouse displays negative emotions through loudness (line 7) and tut (line 10) to hold Mao accountable.

Extract 10 'what's her name'

	001	Hua:	jiao sha mingzi	
			call what name	
			what is her name	
→	002	Mao:	Yan::g Jin:hua h°	
			name	
			Yan::g Jin:hua h°	
→→	003	Hua:	jiao Yang-Wang Jinhua	
			call Yang Wang Jinhua	
			called Yang-Wang Jinhua	
	004	Mao:	**((*nods head*))**	
→→	005	Hua:	Wang	
			Wang	
			Wang	
	006	Mao:	a	
			PRT	
			ah	
→→	007	Hua:	Wang [NI SHUO	
			Wang you say	
			Wang [YOU SAY	
	008	Mao:	**[((*raise index finger*))**	
	009	Mao:	YI GE BU: xing yi ge bu xing	[>°yi ge bu xing°<
			one CL N ok one CL N ok	*one CL N ok*
			ONE IS NO:T ok one is not ok	**[>°one is not ok°<**
→→→	010	Hua:		[zi! ni shuo <Wang Jinhua>
				tut you say Wang Jinhua
				[tut! you say <Wang Jinhua>

011 Mao: [WANG, JIN, HUA]
WANG JIN HUA
[**WANG, JIN, HUA**]
[((*taps finger in air with rhythms matching speech tempo*))]

012 Hua: ai dui jiao Wang Jinhua
PRT right call Wang Jinhua
aye right called Wang Jinhua

Extract 10 occurs during a video call between the couple and Mao's sister-in-law. Before this, Mao's sister-in-law jokingly asked him how many wives he had. After he answered *one*, Hua followed up with another test question: *What's your wife's (Hua's) name?* (line 1). In response, Mao answers *Yang Jinhua* (line 2), which, although incorrect, is close to the correct answer. In the next turn (line 3), Hua corrects him by providing the correct answer: *Wang Jinhua*.

At this point, the interaction shifts from expecting Mao to generate the correct answer independently to prompting him to repeat it. In line 5, Hua begins modelling the correct name for Mao. However, Mao does not follow the model in line 6. In response, Hua repeats the model with a stronger directive, *you say* (line 7), demonstrating a deontically strong request (Stevanovic & Peräkylä, 2012). When Mao again fails to align with this directive (line 9), Hua expresses impatience by exclaiming *tut* at the start of her turn (line 10), a negative-valence reaction. She follows this with another strong directive: *Say Wang Jinhua*. This time, Mao complies and correctly repeats *Wang Jinhua* (line 12). Following Hua's positive assessment in line 13, the correct production sequence is completed.

In interactions where the spouse provides the answer for the person with aphasia, the test question sequence transforms into a correct-production sequence (Lindsay & Wilkinson, 1999). Here, the spouse models the answer, and the person with aphasia must correctly repeat it. Hua uses directives like *you say* (lines 7 and 10) to prompt Mao to repeat the answer. When Mao fails to repeat the answer, Hua displays negative emotions through increased loudness (line 7) and *tut* (line 10). Hua withholds her positive evaluation (line 12) until Mao successfully produces the correct answer.

Extract 11 presents another instance where the spouse asks the person with aphasia to repeat an answer in a test question sequence correctly. The conversation begins with a test question (lines 1 to 4) but transitions into a correct-production sequence (line 5) when the person with aphasia fails to provide the correct answer. During this sequence, the spouse repeatedly requests the person with aphasia to repeat the correct answer—making ten such requests. However, the person with aphasia fails to repeat the answer after each request.

Extract 11 'say dates'

001 Hua: ♦zhe shi sha ya ♦
this be what PRT
♦**what is this YA** ♦
♦leans forward to take dates from table♦

002 Mao: **((looks at dates and takes a date from the table))**

→→ 003 Hua: ♦zhe shi sha ya ♦
this be what PRT
♦what is this YA♦
♦holds the dates♦

004 Mao: **((turns and shows the dates to Das))**

→→ 005 Hua: ni shuo zA:O
you say dA:TES

006 Mao: ai dui dui [dui ° dui dui °
PRT right right right right right
yes right right [right °right right°

→→ 007 Hua: [ni shuo zA:O
you say date
[you say dA:TES

008 Mao: ai dui dui dui ° dui dui ° ° dui dui °° dui dui °
PRT right right right right right right right right right
yes right right right °right right° °right right°°right right°

→→ 009 Hua: ni SHU:o ni shuo zA:O
you say you say date
you SA:y you say dA:TES

010 Mao: °°a: °° °bu xing yi ge bu xing°=
PRT N ok one CL N ok
°°ah:°° °not ok one is not ok°=

011 Hua: =♦a ba zhe ge zao gei da shu ♦
PRT AUX this CL date give big uncle
=♦ok pass this date to uncle Das ♦
♦puts the date in Mao's hand ♦

012 Mao: **((passes the date to Das))**

013 Hua: **δ♦**da shu chi zao **♦δ**
big uncle eat date
δ♦eat dates uncle Das♦δ
♦faces to Mao ♦
mao: δ passes dates to Dasδ

014 Das: **((pushes Mao's hand away to refuse))**

015 Mao: bu >bu bu bu< BU BU
N N N N N N
NO >no no no< NO NO

016 Hua: shu ni jiezhu ni jiezhu
uncle you receive you receive
uncle you take it take it

017 Das: **((Das takes it and puts it back on the table))**

018 Mao: lai lai lai LAI LAI LAI LAI
come come come come come come come
come on come on come on COME ON COME ON COME ON COME ON

019 Das: wo deng yi huier ha wo he zhe shui ne
I wait one moment PRT I drink AUX water PRT
give me one second I am drinking water now

020 Mao: ((nods head))o::
PRT
((nods head))oh::

→→ 021 Hua: ♦ni shuo ZAO ♦
you say date
♦you say DATES ♦
♦gives the date to Mao♦

022 **(1.7)/Mao takes the date and looks at the date**

023 Hua: chi: za:o
eat data
ea:t da:tes

024 Mao: a yi ge bu x[ing
PRT one CL N ok
ah one is not o[k

→→→ 025 Hua: [♦ze! ♦shuo ni shuo chi: za:o
tut say you say eat date
[♦tut! ♦ you say ea:t da:tes
[♦pats Mao's knee♦

026 Mao: °ai dui dui dui °
PRT right right right
°yes right right right°

→→ 027 Hua: ni shuo ZAO
you say date
you say DATES

028 Mao: **(1.0)/puts the date near mouth and pretends eating**

→→→ 029 Hua: ze! ni ♦SH:uo ♦
tut you say
tut! you ♦SA:y ♦
♦punches Mao's knee♦

030 Mao: **δ ah ah ah δ**
δturns to Hua and vocalizes unintelligible speechesδ

→→→ 031 Hua: ZA:O:
date
DA:T:ES

032 Mao: **(0.6) δ yi ge bu xing yi ge δ=**
one CL N ok one CL
(0.6) δ yi ge bu xing yi ge δ=
δ looks at dates δ

→→ 033 Hua: =ni shuo za:o
you say date

			=you say da:tes
	034		**(0.8)/Mao whispers 'one is not ok'**
→→	035	Hua:	ni shu-Shu:o *you say date* **you sa-SA:y**
	036	Mao:	**(0.7)/turns to table and whispers 'one is not ok'**
	037	Hua:	**((pats Mao's leg))**
	038	Mao:	**((turns to wife))**
→→	039	Hua:	ni shuo za:o *you say date* **you say da:tes**
→→→	040	Mao:	**((throws the dates away and swears))**
	041		**((everybody laughs))**

Following Mao's failure to provide an answer to the test question (lines 1 and 3), the sequence shifts into a correct-production sequence, with Hua issuing the directive *you say dates* (line 5) to prompt a repeat from Mao. However, Mao's response in the next turn (line 6) misaligns with this directive, as he responds with his stereotyped speech. In line 7, Hua interrupts Mao and repeats the directive. Again, Mao fails to provide an aligned response (line 8).

By line 9, Hua becomes emotional. She repeats only the directive *you say*, emphasizing and stretching the word *say* in an impatient and exhausted tone. Without pausing, she models the correct answer for Mao again. However, in the next turn, Mao responds again with his stereotyped speech. In line 11, Hua temporarily abandons the modelling sequence and instead asks Mao to give the dates to Das. Lines 11 to 20 involve a sequence where Mao and Hua invite Das to eat the dates.

The modelling sequence resumes in line 21. Hua hands a date to Mao while asking him to repeat the word *date*. In the next turn, Mao takes the date and looks at it but does not respond to Hua's request (line 22). Hua then repeats the phrase *eat dates*, this time stretching each word. Once again, Mao responds with stereotyped speech (line 24), irritating Hua. She tuts and angrily pats Mao's knee (line 25), holding Mao accountable for not repeating the modelled word.

This pattern continues from lines 26 to 29, with Hua persistently pursuing a response while Mao shows signs of disengagement. In line 29, Hua tuts and punches Mao's knee while requesting him to say the word. Despite this, Mao does not provide the expected response. As Hua continues to pursue a response, Mao loses focus and looks away (line 36). Hua then pats his arm to regain his attention. In response, Mao turns his head back toward her (line 38). Once his attention is re-established, Hua resumes the modelling sequence (line 39). However, by lines 40 and 41, Mao becomes frustrated. He throws the dates away and swears (line 40), leading to the abandonment of the sequence.

In this sequence, the spouse highlights that the person with aphasia is not able to produce the correct repeat as accountable. She displays a negative stance towards it in loudness (lines 9, 27, and 31) and tutting (lines 25 and 29) and treats it as blameworthy with slight aggressive non-verbal behaviours such as punching (line 29). The person reciprocates this negative stance with aphasia; he swears and throws the dates away in the end (line 40), and the sequence is abandoned.

5.3.3 Retarding progressivity in third party involved PWA-SOs test question sequences

Extract 12 presents a test question sequence in which a third party is present and provides the answer for the person with aphasia (line 8). The spouse blames the third party for not holding back the answer (line 9). Although this extract differs from previous ones, where SOs halt the sequence progressivity to allow the person with aphasia to respond autonomously, it reflects the spouse's belief in holding back the answer to give the person with aphasia the opportunity to produce it themselves.

Extract 12 'toothpick'

	001	Lan:	[zhe shi sha]
			this be what
			[what is this]
			[((taking the toothpick holder))]
	002		**(1.7)/looks at the toothpick holder**
	003	Fang:	((clears throat) [ti ya de]
			pick tooth NOM
			((clears throat) [things to pick teeth]
			[((pointing with index finger))]
→→	003	Lan:	ti ya de wo zhidao ti ya de zhe jiao sha
			pick tooth NOM I know pick tooth NOM this call what
			things to pick teeth I know what is it called
	004	Fang:	yaokongqi
			remote
			remote
→→	005	Lan:	a?
			PRT
			huh?
	006	Fang:	yaokongqi
			remote
			remote
	007	Lan:	**((pouring out toothpicks from the holder))**
→→	008	Nei:	ya qian
			tooth stick
			toothpick
→→→	009	Lan:	[ai(hh)yao xian shuo gei ta le
			INJ first say give he PFV
			[ai(hh)yao you told him so early

```
                [((turns to neighbor))

010             [((Fang coughs))

011   Lan:      zhe jiao sha
                what call this
                what is this called

012   Fang:     ti     ya de
                pick tooth NOM
                things to pick teeth

013   Lan:      ti     ya    de jiao sha
                pick tooth NOM  call what
                things to pick teeth  what's it called

014   Fang:     ti     ya  bang
                pick tooth stick
                toothpick

015   Lan:      ti    ya    bang?
                pick tooth stick
                toothpick?

016   Fang:     en
                PRT
                emm
```

In line 1, Lan asks a test question. After a pause, Fang responds with things to pick teeth. Treating this response as inadequate, Lan continues to pursue an answer (line 3). In line 4, Fang gives an incorrect answer, remote, which he has perseverated from a prior test question sequence. Lan initiates a repair with an open-class initiation of repair: huh? (line 5) (Schegloff et al., 1977). Fang repeats his answer, remote, in line 6.

Confirming Fang's response, Lan pours the toothpicks out of the holder in line 7. While she is pouring, a neighbour (present but not captured on video) chimes in, giving Fang the correct answer: *toothpick* (line 8). In the turn-initial position of the next turn, Lan produces a negatively charged affect display, *aiyao* (Wong, 2014), expressing a negative stance toward the neighbour's action of providing the answer for Fang. Notably, she balances this negative emotion with laughter embedded in *aiyao*. She then complained that the neighbour had revealed the answer too early (line 9). Following the complaint, she re-asks the test question, treating the person with aphasia as the one who should be answering for himself. Following the spouse's initiation of repair (line 13) on the inadequate response (line 12), Fang produces the answer (line 14). The sequence concludes.

In Extract 12, a third party is present in the conversation where a test question is addressed to the person with aphasia. When the person with aphasia shows difficulty (e.g., providing an incorrect answer or no response) in answering in the second position following the test question, the third party provides the answer for him. The spouse, preferring that the person with aphasia answer for himself holds both parties accountable by displaying negative stances toward the third party's action of providing an answer for the person with aphasia and the person with aphasia's failure to respond.

5.3.4 Summary of PWA-SOs Test Question Sequences

The two spouses in our data set who engaged in test question sequences each retards the progressivity and prioritize the person with aphasia in answering test questions. Certain practices by the interlocutors are recurrently produced in the third turn sequential slot following an incorrect answer response or a no answer response by the PWA. For instance, the interlocutor might respond by repeating the test question (e.g., Extract 5, lines 1-3; Extract 9, lines 1-3) or prompting a further attempt from the PWA with a token such as 'huh?' (e.g., Extract 5, lines 12 and 28; Extract 7 line 25; Extract 8, lines 5, 9 and 14; Extract 9, line 5). These responses do not provide any extra information about the answer, and thus, they implicitly communicate to the PWA that they should access and produce the answer by themselves (Auer, 2014). Notably, the spouses here pass up the opportunity at these points to produce other kinds of turns, which would either assist the PWA in producing the answer (e.g. via a semantic or phonemic cue) or prioritize progressivity by ending the activity (e.g. by providing the answer).

It was also evident that, in test question sequences, the SOs do more than elicit the answer from the PWA; they also hold the PWA accountable (Stivers & Robinson, 2006) for not providing the answer. Thus, at these points, the spouses do not treat the lack of a correct answer as a neutral event; instead, they orient to it as a moral issue, with the PWA regularly portrayed as blameworthy in some regard. This still holds when the answer is provided by a third party (Extracts 12). The sense is often that the spouse is treating the PWA as not trying hard enough to produce the correct answer, especially if the PWA have already had previous unsuccessful tries and is still not succeeding (see discussion below about the link between the length of the attempt and the attempt being treated as accountable). This appears to be another facet of the PWA being treated as an autonomous speaker, i.e., that the interlocutor may treat the lack of success in the answer attempt as linked to something under the speaker's control, such as effort (which the PWA can be held accountable for), rather than being solely caused by something that is not under the PWA's control (i.e., the aphasia).

5.4 Comparison of Test Question Sequences Between PWA- HCPs and PWA-SOs

This chapter has examined the management of test question sequences by healthcare professionals and significant others in interactions with people with aphasia.

As I show, both HCPs cue to co-construct the correct answer with the PWA. They neither provide the answer nor withhold it entirely. With this approach, if the PWA eventually succeeds in producing the word with the assistance of cueing, the preference for the recipient of the question to provide the answer (Stivers & Robinson, 2006) is adhered to, albeit only partially, since the PWA physically produce (or 'animates': Goffman, 1981) the target word, but it is not produced autonomously due to the co-construction (i.e., partial 'authorship': Goffman, 1979) by the interlocutor. In these successful cases, the preference for progressivity (Schegloff, 2007) may also be partially adhered to since the PWA may produce the target word without a prolonged delay. If the cueing is unsuccessful, typically in our data, the interlocutor prioritizes progressivity (e.g., by providing the answer, see Extracts 1 to 3 or by abandoning the sequence, see Extract 4).

While the two therapists co-construct the correct answers with the PWA, both spouses PWA in answering the question, i.e., acting in line with the preference for the recipient to provide the answer (Stivers & Robinson, 2006). Thus, they typically do not, at least for quite some time, provide the answer or abandon the test question activity. They retard progressivity by not cueing the PWA since this would detract from the PWA answering the question themselves. While these practices mean that, in principle, the PWA should answer the question autonomously (i.e., without the assistance of cueing by the interlocutor), in practice, this does not typically happen due to the aphasia. Instead, it highlights the linguistic limitations and threatens the face of the PWA, leading to interactional discord. In addition, the sequence progressivity (Schegloff, 2007) is retarded with this style since the spouse perseveres over several turns, attempting to elicit another try from the PWA, and the test question activity can be longer than with other options (see especially Extract 5).

These findings show that the set of practices interlocutors employ in conducting the test question sequence is not simply linked to the type or severity of aphasia. They also have implications for our understanding of how significant others and health professionals compare in terms of how they interact with people with aphasia (see also Lindsay & Wilkinson, 1999; Laakso, 2015).

5.5 Chapter Summary

This chapter has examined how significant others and healthcare professionals engage in test question sequences during interactions with people with aphasia. It contrasts the different interactional styles or practices through which the SOs and HCPs in this study engage in test question sequences with PWA. SOs display practices prioritising the autonomy of the PWA and treating the PWA as accountable for their difficulties in producing the target answer. One effect of this way of dealing with the PWA's difficulties is that the progressivity of the sequence (Schegloff, 2007) is delayed. In contrast, the HCPs engage more in co-construction of the answer (by providing the PWA with cues) and do not explicitly treat the PWA as accountable for their difficulties. Due to these practices, progressivity is generally less delayed than in the SO-PWA test question sequences. These findings suggest that the interlocutor's practice in managing test questions is not solely linked to the type or severity of aphasia. They also have important implications for understanding how significant others and health professionals compare in their interactions with people with aphasia.

Chapter 6 Interlocutors' Managing of Wernicke's Aphasia: Prioritizing Progressivity or Prioritizing Understanding the People with Aphasia

6.1 Introduction

Wernicke's aphasia, one of the most common forms of fluent aphasia, is caused by a lesion in the temporal lobe of the language-dominant hemisphere (Brookshire, 2007). Individuals with Wernicke's aphasia can speak fluently but often struggle with word retrieval, leading to paraphasic errors, jargon, or empty speech. They may also exhibit perseveration, press of speech, or logorrhoea. While these issues have been acknowledged in clinical settings (Marshall, 2016; Code, 1989), there is a lack of studies examining how these linguistic features affect real-life conversations (Beeke et al., 2020).

This chapter explores interactions involving two people with Wernicke's aphasia—Jian, who has severe Wernicke's aphasia, and Jun, who has mild Wernicke's aphasia—each interacting with a healthcare professional (HCP) and a significant other (SO).

Jian's severe Wernicke's aphasia is marked by the use of jargon and perseveration, leading to sequential difficulties in his conversations. These difficulties manifest when Jian's responses to questions from his daughter or therapist consist of mismatched jargon or perseverations, leading to the misunderstanding of the non-aphasic interlocutors. Conversely, Jun, who has mild Wernicke's aphasia, does not exhibit jargon but instead displays a press of speech, creating turn-taking challenges in his conversation. This disrupts the timing for non-aphasic interlocutors to take their turns appropriately.

In the subsequent analysis, I examine Jian's interactions with his daughter (DAU) and therapist (TG), highlighting the sequential issues posed by severe Wernicke's aphasia in interaction and investigating how the daughter and the therapist manage these issues in conversation. Following this, I explore Jun's interactions with his father (F) and therapist (TH), discussing the turn-taking challenges presented by a less severe condition and how the father and therapist manage the turn-taking challenges in interactions. By juxtaposing these cases, we identify the similarities and differences between healthcare professionals and family members in managing conversational issues across varying severities of Wernicke's aphasia.

Section 6.1 introduces the chapter. Section 6.2 presents how SOs and HCPs manage nonanswer responses produced by PwWA. Section 6.3 shows how SOs and HCPs manage the press of speech produced by PwWA. Section 6.4 discusses the similarities and differences in managing issues caused by Wernicke's aphasia across interlocutors. Section 6.5 summarizes the chapter.

6.2 Jian-Daughter Interactions and Jian-Therapist (TG) Interactions

Section 6.2 examines the interactions between Jian and his daughter (DAU), followed by his interactions with his therapist (TG). This section focuses on how therapist and daughter manage interactional difficulties caused by Wernicke's aphasia.

6.2.1 Jian-Daughter Interactions

In this analysis, I examine examples of where mutual understanding and shared meaning is successfully achieved, as well as instances where it falls short.

6.2.1.1 Understanding Jian's Answer: Daughter Responds oh

Data shows that Jian could complete a question-answer sequence when questions are designed around yes/no interrogatives (Raymond, 2003). Section 6.2.1.1 discusses moments where Jian successfully provides a second pair part (SPP) answer following a first pair part (FPP) question from his daughter. The SO, his daughter, displays understanding by responding to a change of state token *oh* (Heritage, 1984). This could be done directly following the SPP answer or following a confirmation-seeking sequence (fig.1). Extracts 1 to 2 illustrate this issue.

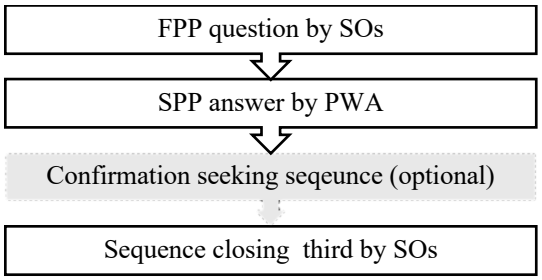


Figure 1. PWA-SOs Sequence Structure 1

Extract 1 'have meal'

	001	DAU:	xiang zhe chi fan? *want AUX eat meal* **want to have a meal?**
	002	Jian:	chi fa↓n *eat meal* **have mea↓l**
→→	003	DAU:	o chi fan chi shenme fan ne PRT eat meal eat what meal AUX **oh have meal what meal do you want to have NE**

Before Extract 1, the daughter (DAU) discusses what they will eat for dinner with her father (Jian). After Jian whispers that he wants a meal, the daughter asks if *he wants a meal with* a rising intonation (line 1). Jian replies by repeating *have a meal* with falling intonation. The daughter indicates her understanding with a change-of-state token, *oh* (Heritage, 1998), and repeats his answer to confirm her comprehension (Sacks, 1992). The conversation then shifts to a related topic, specifically discussing what meal he wants (line 3).

Extract 2 'did you eat orange'

	001	DAU:	ne ge me chi lai me chengzi chi lai me *that CL what eat AUX AUX orange eat AUX AUX* **that thing what was it called orange did you eat**
	002	Jian:	**((shakes head))**
	003	DAU:	ye mei chi ma? *also N eat AUX* **didn't eat either?**
	004	Jian:	en *emm* **emm**
→→	005	DAU:	o duo chi shuiguo **o:h eat more fruit**

In Extract 2, the daughter asks her father whether he has eaten oranges. Jian shakes his head after her yes/no question (line 1). The daughter then seeks confirmation from Jian in line 3, which he acknowledges with *emm* (line 4). Following this confirmation, the daughter indicates her understanding of the change-of-state token *oh* (Heritage, 1998) in line 5.

In these extracts, Jian, with Wernicke's aphasia, demonstrates his ability to understand and respond to yes/no questions. The daughter shows her understanding of Jian's response through the change-of-state token oh(Heritage, 1998). The sequence progresses from an FPP question to an SPP answer, which is then followed by a sequence-closing third, *oh* (fig. 1) (Schegloff, 2007; Stivers et al., 2013).

6.2.1.2 Prioritizing Understanding in Managing Nonanswer Responses: Daughter Initiates Repair

However, most of the time, a speaker with severe Wernicke's aphasia cannot answer the question. He may respond to a question with perseverations of a previous response or jargon (Albert & Sandson, 1986; Stark, 2018).

In conversation, a sequence can be closed with a response, an answer or a nonanswer (Schegloff, 1968). If a question is responded to by a turn that does not provide an answer, the turn constructional units (TCUs) composed of this turn are nonanswer responses. These could be other initiations of repair (e.g., huh?, see Schegloff et al. (1977)), inability accounts (e.g., I don't know, see Heritage (1984)), unwillingness accounts (e.g., I don't want to say), non-account responses (e.g. smiles or laughs) (Stivers, 2022).

In this chapter, we will add to this group one more type of nonanswer response, a nonanswer perseveration from a response to a prior question or a nonanswer jargon being composed of nonwords or a mixture of some aspects of target phonology and nonwords (and sometimes an anomalous combination of real words) (Stark, 2018). These nonanswer responses, which show that the person with aphasia does not seem to attempt the answer, are sequentially anomalous to the previous questions, causing understanding issues for the SO. Section 6.2.1.2 will show how the SO responds to these nonanswer responses.

In examining the conversation between Jian and his daughter, we found that following the daughter's question, Jian responds with a nonanswer. The daughter then reacts to these nonanswer responses by commenting on their inappropriateness or asking for clarification. In responding, Jian perseveres in his nonanswer response (Fig. 2). How the daughter manages those responses exposes and highlights Jian's incompetence. The sequence tends to be abandoned due to misunderstandings. Extracts 3-4 will illustrate this issue.

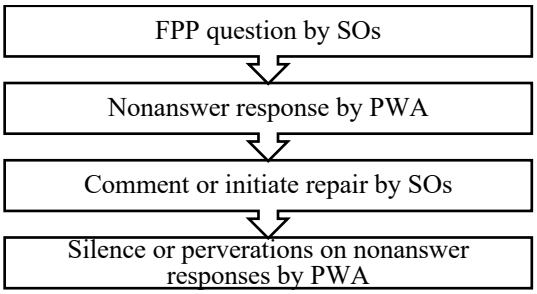


Figure 2. PWA-SOs Sequence Structure 2

In Extract 3, the question-answer sequence has been expanded due to Jian's nonanswer response (line 2). The nonanswer response is being perseverated on and on (e.g., lines 6 and 8) following SO's initiations of repair (e.g., lines 3, 7, 9, 11, 13, 15). The sequence progressivity is delayed, and no understanding is achieved. The sequence is being forced to be abandoned in the end.

Extract 3 'two home'

	001	DAU:	o chi fan chi shenme fan ne PRT eat meal eat what meal AUX **oh have meal what meal do you want to have NE**
→	002	Jian:	liang jia *two home* **two homes**
→→	003	DAU:	a? *PRT* **huh?**
	004	Jian:	liang jia *two home* **two homes**
→→	005	DAU:	**((laugh))**
	006	Jian:	liang jia *two home* **two homes**
→→	007	DAU:	(1.5) a? *PRT* **(1.5) huh?**
	008	Jian:	liang jia *two home*

			two homes
→→	009	DAU:	liang jia me a *two home what PRT* **two homes what**
	010	Jian:	liang jia *two home* **two homes**
→→	011	DAU:	shenme liang jia ((laughter)) *what two home* **what are two homes ((laughter))**
	012		**(2.8)/ Jian lies on bed, opens eyes**
→→	013	DAU:	shenme liang jia *what two home* **what are two homes**
	014		**(0.7)/ Jian lies on bed, opens eyes**
→→	015	DAU:	an? PRT **huh?**
	016		**(2.2)/ Jian lies on bed, closes eyes**
	017	DAU:	kun le ma sleepy PFV AUX **are you sleepy**
	018		**(1.6)/ Jian lies on bed, opens eyes**
	019	DAU:	shi ma *be AUX* **are you**
	020		**(2.9)/ Jian lies on bed, opens eyes**
	021	DAU:	he shui ma *drink water AUX* **(do you) drink water**
	022	Jian:	**((shake head))**

Extract 3 continues from Extract 1. In this extract, the daughter asks her father, Jian, a content question (Hayano, 2012) about what meal he wants (line 1). Jian responds with *two homes* (line 2), a nonanswer response (Stivers, 2022). In line 3, the daughter initiates a repair with an open-class repair initiation, *huh?* (Schegloff et al., 1977). Jian repeats *two homes* in line 4. Hearing this response, the daughter laughs in line 5, which, according to Wagner and Wilkinson (2024), indicates a problem with the response and directs the speaker's attention to the error. However, Jian's repetition of *two homes* in the next turn (line 6) suggests he is unaware of his error.

The daughter attempts another repair on *two homes* in line 7. The same pattern recurs, with Jian responding again with the nonanswer *two homes* (line 8). After receiving another repetition of the nonanswer response, the daughter uses a designedly incomplete utterance (Koshik, 2002), asking *two homes what* to seek more contextual information about Jian's response. Not understanding the daughter's turn, Jian repeats *two homes* in line 10. The daughter continues to seek clarification by asking Jian twice, *What are two homes?* (lines 11 and 13), However, Jian does not respond to either question (lines 12 and 14); he remains silent despite further prompting from the daughter in line 15. The sequence is then abandoned.

In this sequence, Jian's responses demonstrate that he does not even attempt to produce the answer. In responding, the daughter initiates repairs (e.g., line 3) and asks for clarification about the nonanswer response (e.g., lines 11 and 13). She prioritizes understanding the person with aphasia over sequence progressivity (Schegloff, 1979). She morally holds the person with aphasia accountable by laughing at his response (e.g., line 11). Despite these efforts, the person with aphasia keeps perseverating on the nonanswer response (see Fig. 2). The issue of understanding remains unresolved, and the sequence is ultimately abandoned.

Extract 4 presents another sequence where a question is responded to with jargon (i.e., an anomalous combination of real words) (Marshall, 2006). In this sequence, the SO again halts the progressivity of the sequence to seek an understanding of the nonanswer response. She laughs at the response (lines 3 and 11), initiates repair or asks for clarification (e.g., lines 5, 7 and 9; lines 11, 13, 15 and 17). Despite her efforts in initiating repairs on a nonanswer response at the cost of moving forward the sequence, she still cannot understand the person with aphasia. The sequence is once again being abandoned (line 18).

Extract 4 'vent anger on grandma'

	001	DAU:	ming tian gan ma *next day do what* **what will you do tomorrow**
→	002	Jian:	na - na nainai= *take take grandma* **take-take grandma=**
→→	003	DAU:	**((laughter))**
	004	Jian:	=(ta) - (ta) qi *paraphasia paraphasia anger* **=(vend)-(vend) anger**
→→	005	DAU:	ta qu gan ma qu *he go do what go* **he goes to do what**
	006		**(1.6)**
→→	007	DAU:	an? *PRT* **huh?**
	008	Jian:	a?

PRT
huh?

→→ 009 DAU: ta qu gan ma
he go do what
he goes to do what

010 Jian: (1.2) na nainai sa qi
take grandma vent anger
(1.2) vent anger on grandma

→→ 011 DAU: ⌈°na nainai sa qi°⌉ shui na nainai sa qi
⌊ ((laughter)) ⌋
take grandma vent anger who take grandma vent anger
⌈**vent anger on grandma**⌉ **who vent anger on grandma**
⌊ **((laughter))** ⌋

012 **(0.5)**

→→ 013 DAU a?
PRT
huh?

014 **(1.1)**

→→ 015 DAU: a?
PRT
huh?

016 **(1.3)**

→→ 017 DAU: shui na nainai sa qi
who take grandma vent anger
who vent anger on grandma

018 **(5.9) [(7.4)](5.5)**
[((massage Jian's head))]

019 DAU: hui jia ting ge ba
back home listen song AUX
go back home and listen to some music

020 Jian: ting ge
listen song
listen to the music

021 DAU: ai
INT
aye

In Extract 4, the daughter asks her father another content question: *What will you do tomorrow?* (line 1). Jian takes *Grandma* (line 2), a sequentially unfitting nonanswer. Before he can complete the second half, *vend anger* (combined with *taking grandma* in line 2 can be interpreted as *venting anger on grandma*), the daughter laughs in line 3, marking a problem with Jian's response (Wagner & Wilkinson, 2024). However, Jian distorts the sound of *sa* (vent) into *ta* (third-person reference in Mandarin) in line 4, causing the daughter to

misinterpret *sa qi* (vent anger) as *ta qu* (he goes to). Consequently, in line 5, the daughter seeks clarification, asking *him to do what?*

After a brief silence, she continues with *huh?* in line 7. Jian responds with *huh?* as well. Interpreting this as a repair initiation (Schegloff et al., 1977), the daughter repeats *he goes to do what?* In line 9. (Lines 5 to 9 are part of a sequence stemming from the daughter's misinterpretation of Jian's speech in line 4.) After a short pause, Jian repeats the nonanswer jargon *and vents anger at Grandma* in line 10. In line 11, the daughter repeats his response with embedded laughter, signalling the problematic nature of his answer (Bolden, 2009; Wagner & Wilkinson, 2024). She then initiates a repair, asking, *Who vented anger on grandma?*

Jian remains silent, prompting the daughter to pursue clarification again with *huh?* in line 13. Jian does not respond in line 14. The same pattern reoccurs from lines 15 to 16. The daughter pursues one more time in line 17 by repeating *who vents anger on grandma*, followed by an 18.8-second silence. The sequence is abandoned.

In the above extracts, the person with aphasia responds with nonanswer responses (e.g., jargon, perseverations) to questions posed by the SO. When asked for clarification, he continues to persevere with these nonanswer responses. This behaviour reflects the communication patterns associated with Wernicke's aphasia. Despite the SO's awareness of the aphasia, the conversation demonstrates her tendency to understand the person with aphasia rather than prioritize sequence progressivity. The SO halts the progression of the conversation to initiate repair, asks for clarification, and uses emotional displays (e.g., laughter) to draw the person with aphasia's attention to his errors. By continually highlighting and attempting to repair the nonanswer responses, she prioritizes resolving the understanding issue over moving the sequence forward to the following action (Stivers & Robinson, 2006). However, the sequence has never reached a mutual understanding to move the talk forward.

6.2.1.3 Summary of Jian-daughter Interactions

Section 6.2.1.2 examines the everyday conversation between the SO (daughter) and the person with aphasia (Jian), focusing on how the SO manages nonanswer responses. The extracts show that the SO often asks content questions, constraining the following response regarding form and content (Hayano, 2013). These information-seeking questions frequently elicit nonanswer responses (Stivers & Robinson, 2006), which are produced and then repeated by the person with aphasia, leading to a breakdown in the sequence structure.

The SO is observed initiating repairs or seeking clarifications for the nonanswer responses. Despite these efforts, the person with aphasia continues to perseverate on the nonanswer, and this process can recur multiple times (see Fig. 2). Consequentially, the conversation may be forced to stop, proceed into long silences, or lead to participants disengaging from the interaction. Notably, in conversations involving nonanswer responses, the SO not only seeks clarification but also repeats and comments on the responses, often with laughter (e.g., lines 5 and 11 in Extract 3; lines 3 and 11 in Extract 4). To some extent, these practices highlight the person with aphasia's linguistic challenges and hold them accountable for their conversational behaviours.

6.2.2 Jian-Therapist Interactions

Section 6.2.2 examines interactions between therapist TG and Jian. Similar to everyday conversations at home, this section highlights instances where mutual understanding is achieved (e.g. when Jian responds to yes/no questions) and where it breaks down (e.g. when Jian produces nonanswer responses such as jargon or perseverations). The focus here is on how the therapist manages sequence breakdowns caused by nonanswer responses from the person with aphasia.

The data shows that the therapist often manages nonanswer responses with receipting tokens. This approach maintains sequence progressivity, allowing the interaction to progress smoothly to the next topic (fig. 3) (Schegloff, 2007). In contrast to the SO, who halts progressivity to prioritize understanding, the therapist appears to prioritize progressivity over understanding (Raymond, 2016).

6.2.2.1 Understanding Jian's answer: HCPs Respond oh and partial answer repetition

As in conversations at home, mutual understanding can also be achieved in interactions between the person with aphasia and the therapist. When Jian's response is correct, the therapist would claim her understanding with a change of state token *oh* and a (partial) repetition of Jian's answer to display her understanding (Extracts 6-7) (fig. 3).

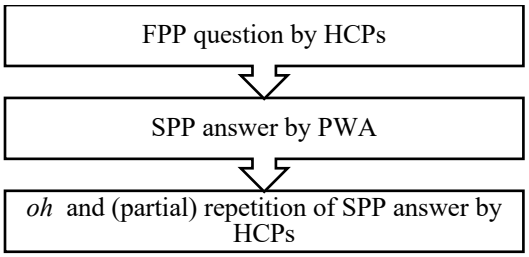


Figure 3. PWA-HCPs sequence structure 1

Before a therapy session, TG talked with Jian about what he had for lunch that day. Following a paraphasic error produced by Jian, the therapist carries on the sequence, asking him whether it is tasty (line 1).

Extract 6 'tasty'

	001	TG:	hao chi ma
			PRT good eat AUX
			is it tasty
	002	Jian:	hao chi
			good eat
			tasty
→→	003	TG:	o: hao chi a
			PRT good eat PRT
			o:h tasty A

Jian responds with a repetition of the adjective, a type of confirmation to yes/no questions in Mandarin (Chao, 1979; Wang, 2021). The therapist in line 3 accepts this response with a change of state token *oh* to

claim her understanding (Heritage, 1998) and a repeat of the answer to display her understanding (Sacks, 1992). The talk begins with what he did this morning (Extract 10).

Extract 6 T-Jian 'ride bike'

	001	TG:	ni deng che le ma jintian yeye
			you ride bike PFV AUX today grandpa
			have you ridden the bike today grandpa
	002	Jian:	deng - deng che la
			ride ride bike PRT
			ri-ridden bike la
→→	003	TG:	a deng che la
			PRT ride bike AUX
			ah ridden bike la

Similarly, in Extract 6, Jian manages to respond to TG's yes/no question with a repetition of the ridden bike (line 2), a verb repeat to give a confirmative response to the yes/no question (Wang, 2021). The utterance final la following the verb repeat functions to soften the tone. Again, TG claims understanding with the change of state token ah (Heritage, 1984) and a display of understanding (Sacks, 1992) by repeating Jian's answer, ridden bike la. The talk develops to talk about other physio activities following this sequence.

When understanding is achieved in conversation, the therapist claims understanding and displays understanding by repeating the person with aphasia's answer. Through repetition, the therapist demonstrates active listening, validation, and confirmation of the person with aphasia's contribution.

6.2.2.2 Prioritizing Progressivity in Managing Nonanswer Responses: HCPs use response tokens

In Jian's interaction with his therapist, he is also seen responding to nonanswer responses (e.g., jargon, perseverations). Though well-articulated and fluent, these responses are semantically anomalous and do not fit sequentially with the prior turn's question. The therapist responds with the laughter-embedded change of state token oh(h)/ah(h) (Heritage, 1984), sometimes a turn-prefaced frowning (Kaukomaa et al., 2014) or an isolated change of state token oh/ah (Heritage, 1984) to subtly indicate that the response is problematic while still maintaining an accepting stance (Extracts 7-10). The basic sequence structure is maintained between HCPs-PWA interaction (fig. 4).

In the following analysis, I first present two extracts (Extracts 7 and 8) where the therapist frowns before accepting a nonanswer response. Then, I show one extract where the therapist accepts the answer and embeds the acceptance with laughter (Extract 9). Lastly, I present one extract where the therapist accepts the response and then laughs (Extract 10).

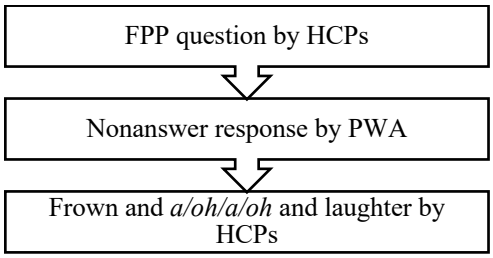


Figure 4. PWA-HCPs sequence structure 2

Extracts 7 and 8 are cases where the therapist frowns before accepting the nonanswer responses.

Extract 7 is from a conversation that occurred before the language therapy session. While setting up the computer, TG asks Jian how he comes to the lobby (the place for physiotherapy and speech and language therapy).

Extract 7 'how did you come to the lobby'

	001	TG:	ni zenme lai de dating?
			you how come NOM lobby
			how did you come to the lobby
→	002	Jian:	wo de dui dating (1.2) bianhua geng-geng da
			I NOM right lobby change more more big
			my right lobby (1.2) more b-bigger changes
→→	003	TG:	((frowning))/(1.4) a ni zou - zou guo lai de ma
			PRT you walk walk pass come NOM AUX
			((frowning))/(1.4) ah did you walk – walk here
	004	Jian:	zou guo lai de
			walk pass come NOM
			walked here

In line 2, Jian responds with semantic jargon, real words combined in an anomalous order (Stark, 2016; Stivers & Robinson, 2006). Like his responses in conversations with his SO, Jian's reply is fluent and timely but semantically and syntactically anomalous. In line 3, the therapist signals an issue with Jian's response by frowning at the start of her turn (Kaukomaa et al., 2014; Heritage & Sorjonen, 2018). Shortly after, she accepts the response with a change-of-state token *ah* (Heritage, 1984). It is important to note that while the *ah* token closes the sequence, it does not conclude the action. Following *ah*, the therapist rephrases her original query into a yes/no question, *did you walk here* (line 3) (Raymond, 2003). In the next turn, Jian repeats the verb phrase *walked here*, which in Mandarin functions as an affirmative response to a yes/no question (see Wang, 2021, for more on verb repetition in Mandarin).

In this extract, while the person with aphasia provides nonanswer responses similar to those observed in interactions with his daughter, the therapist employs a different approach to managing these responses. Unlike the daughter, who frequently initiates repair and requests clarification of nonanswer responses (see Extracts 3-4), the therapist acknowledges the issue subtly with a frown but does not explicitly address it as problematic. Instead, the therapist pauses for 1.4 seconds, raising an eyebrow to signal a potential problem

with the response, and then proceeds by accepting it with the change-of-state token *ah*. The third position, *ah*, indicates acceptance of the person with aphasia's response, structurally closing the sequence (Schegloff, 2007).

Extract 8 provides another example in which Jian produces a nonanswer response to a content question. As in previous instances, the therapist begins by frowning (line 2) to implicitly signal an issue with the response (Kaukomaa et al., 2014). As Jian completes his turn, the therapist accepts his response with a change of state token *ah* (line 3) (Heritage, 1984). TG also marks a problem with Jian's response with follow-up laughter (Wagner & Wilkinson, 2024).

Extract 8 'when did you stand bed'

	001	TG:	shenme shihou zhan chuang de *what when stand bed NOM* **when did you stand bed**
→	002	Jian:	qiutian[<yinggai> <dagai>] *autumn should maybe* **autumn [<should> <maybe>]**
→→		TG:	[T frowns]
→→	003	TG:	**ah(hahhahhah)**
	004	Jian:	yinggai *should* **should**
	005	TG:	yinggai dagai *should maybe* **should maybe**
	006	Jian:	ai *PRT* **yes**
	007		**(2.0)**

In line 1, the therapist asks Jian when he stands bed, to which Jian responds *that autumn should be* (line 2). This response comprises an anomalous combination of real words (i.e. semantic jargon) (Stark, 2018). It is neither an answer nor an attempt to an answer. When Jian produces the first TCU *autumn* in his turn in line 2, the therapist raises her eyebrow to recognise a potential problem (Kaukomaa et al., 2014). However, after Jian completes his turn, the therapist accepts his response with a change-of-state token *ah* (Heritage, 1984), further highlighting Jian's problem with a string of laughter (Haakana, 1999; Wagner & Wilkinson, 2024). As the sequence could have concluded here, the person with aphasia initiates a side sequence (Schegloff, 2007) with a partial repetition of his nonanswer response. In the next turn, the therapist completes his response with the rest of his previous response, *maybe*, to which the person with aphasia confirms with an acknowledgement token *yes* (Jefferson, 1984) in line 6. The sequence ends with a long silence in line 7.

In Extract 9, the therapist accepts the nonanswer response in line 4 but subtly signals an issue by embedding laughter into the acceptance. (Wagner & Wilkinson, 2024).

Extract 9 'how long you stand bed'

	001	TG:	a: zan zhan duo chang shijian zhan yi ci chuang *PRT we stand many long time stand one time bed* **a: how long do we usually stand each time**
	002	Jian:	(1.6) ( ) zhan ( ) *stand* **(1.6) ( ) stand ( )**
	003	TG:	zhan: shi fenzhong? *stand ten minute* **stan:d ten minutes?**
→	004	Jian:	sheng zai nali ((shake head))NENG ZAI NALI *born at where can at where* **where be born((shake head))CAN BE WHERE**
→→	005	TG:	**a(h)h(hahhah)**
	006		**(7.1)**
	007	TG:	ni deng che le ma jintian yeye *you ride bike PFV AUX today grandpa* **have you ridden the bike today grandpa**

In line 1, the therapist asks Jian how long he stands by the bed each time. After a brief delay, Jian whispers something about standing in line 2. In line 3, the therapist rephrases her question into a yes/no format, incorporating a ten-minute suggested answer. Despite this reformulation, Jian lacks understanding and responds with another sequentially anomalous semantic jargon in line 4. While the speech is fluent and well-articulated, it does not make sense semantically or syntactically. The therapist, once again, shows acceptance of the response with a change of state token ah (line 5) (Heritage, 1984). He also subtlety indicates a problem with the response through laughter (Line 5). Following the sequence, there is a long silence. The conversation then moves on to other topics.

In Extract 10, the therapist first accepts the nonanswer response and then laughs to indicate a problem with the response.

Extract 10 continues from Extract 7, where the therapist initially asks Jian how he arrived at the lobby. Jian responds by saying he walked (line 4 in Extract 7). Although the therapist accepted this answer, she did so while indicating a problematic stance toward it. In Extract 10, the therapist asks whether Jian took the elevator (line 1), initiating an alternative answer instead of directly rejecting Jian's response of walking here. In this way, he works on understanding how Jian comes to the lobby while prioritizing progressivity.

Extract 10 T-Jian 'where did you take the elevator'

	001	TG:	ni- ni zuo dianti le ma *you you sit elevator PFV AUX* **did you-did you take the elevator**
	002	Jian:	dianti *elevator* **elevator**
	003	TG:	zuo le ma *sit PFV AUX* **did you take**
	004	Jian:	zuo le *sit PFV* **(I) did**
	005	TG:	bu sh(h)i-zan bu shi zai yi lou ma *N be we N be at one floor AUX* **aren(h)'t-aren't we on the ground floor**
	006		ni zai na zuo de dianti a *you at where sit NOM elevator PRT* **where did you take the elevator A**
→	007	Jian:	(3.2)<lou zai dangzhong> (GÓU) *building at middle paraphasia* **(3.2) <building in the middle> (GÓU)**
→→	008	TG:	a ((xiao)) *PRT* **ah ((hahhahhah))**
	009	Jian:	(GÓU) *jargon* **(GÓU)**
	010	TG:	((xiao)) shi ma *be AUX* **((hahhah)) is it**
	011	Jian:	en *emm* **emm**
	012	TG:	o jintian zuo tiliao le ma *PRT today do physical therapy PFV AUX* **oh did you do physical therapy today**

When asked whether he took the elevator (line 1), Jian responds by repeating the noun phrase *elevator* (line 2). This might signal a problem with the prior turn in typical conversation, especially when delivered with rising intonation (Bolden, 2009; Fox & Thompson, 2010). However, this extract could represent a meaningless repetition, such as echolalia, that is often associated with aphasia (Schuler, 1979). Despite being seemingly meaningless, this response differs from previous sequentially anomalous responses, as it at least relates to the

prior question. Consequently, the therapist does not change the topic but continues rephrasing her question, omitting the word *elevator* in line 3. This time, Jian responds with a type-conforming verb repetition, *did,* which potentially serves as a 'yes' to the yes/no question (Raymond, 2003; Wang, 2021).

Given that Jian's room and the rehabilitation centre are on the ground floor, the therapist poses a challenge to his response with the question, *aren't we on the ground floor? Where did you take the elevator?* (line 6). After a prolonged silence of 3.2 seconds (line 7), Jian replies with semantic jargon (Marshall, 2006) that combines real words (*building in the middle*) with a neologism (*góu*) in an anomalous order. While this response is fluent, it is sequentially unintelligible and unrelated to the FPP question. In response to this nonanswer response, the therapist produces a change-of-state token *ah* (Heritage, 1984), immediately followed by a string of laughter (line 8). Although the *ah* seems to accept the response, the laughter indicates a problematic stance (Jefferson, 1984; Wagner & Wilkinson, 2024).

As the sequence could have concluded, Jian repeats his neologism *GÓU* in line 9. The therapist responds with another laugh and an agreement-seeking phrase, *is it?*. Following Jian's agreement in line 11, the therapist concludes the sequence with *oh* (Schegloff, 2007; Heritage, 1984) and shifts the topic to his physiotherapy.

The therapist prioritises progressivity when deciding whether to ask for clarification or to continue the sequence. She neither initiates repair on the nonanswer responses nor asks for clarification. Instead, she accepts the responses with a sequence-closing token *ah* (line 8) while simultaneously signalling a problematic stance with it through laughter (lines 8 and 10). Although the response provided by the person with aphasia is not an answer and not even an attempt at one, the therapist treats it as sufficient to move on to the following sequence.

6.2.2.3 Summary of Jian-Therapist Interactions

The above extracts reveal that in conversations between a therapist and a person with Wernicke's aphasia, the therapist typically does not initiate repair or seek clarification on nonanswer responses. Instead, she accepts these responses and closes the sequences with change-of-state tokens *ah* or *oh* (Heritage, 1984) while also indicating a problematic stance with it through non-verbal cues such as laughter or frowning (Kaukomaa et al., 2014; Wagner &Wilkinson, 2024). Though the therapist raises an issue with the nonanswer responses, she does not dwell on it. The conversation usually progresses to another topic following a close of the prior sequence. The sequence structure in PWA-HCPs interactions follows the basic format of an FPP question-SPP nonanswer response-third position sequence closure outlined by Schegloff (2007). Instead of pursuing understanding, the therapist prioritises sequence progressivity. She does not hold the PWA accountable for the nonanswer responses. This allows better communication and a natural flow of the conversation to progress from topic to topic, avoiding the circulating pattern of questions/initiations of repairs and perseverations on jargon (fig. 2), which may ultimately lead to sequence abandonment.

6.2.3 Summary of Jian-Daughter Interactions and Jian-Therapist Interactions

Section 6.2 has discussed interactions between Jian, a person with aphasia, and his daughter and between Jian and his therapist, TG. While mutual understanding can be achieved in their conversations (see Fig. 1 and Fig. 3), they often break down due to nonanswer responses produced by the person with aphasia.

Data has shown that the SO often initiates repairs to seek clarification on those sequentially anomalous nonanswer responses. She comments on and highlights the problematic nature of the nonanswer response, which leads to the person with aphasia's perseveration on nonanswer responses (see fig. 2). Consequentially, the conversation may be forced to stop, proceed into long silences or result in participants dropping out of the conversation.

In contrast, the HCP, while also showing a problematic stance towards the person with aphasia's nonanswer responses through nonverbal cues such as laughter or frowning (Kaukomaa et al., 2014), may accept these responses with a sequence-closing third token *oh/ah* (Heritage, 1984; Schegloff, 2007). Rather than focus on understanding the nonanswer response, she prioritizes sequence progressivity. This could be seen from the different sequence structures in the above analysis (see Fig. 2 and Fig. 4).

6.3 Jun-Father Interactions and Jun-Therapist (TH) Interactions

Unlike Jian, whose speech is marked by perseveration and jargon, Jun uses real words. However, his speech is repetitive and continuous, characterized by a 'press of speech'—also known as logorrhoea (Luria & Hutton, 1977), which is described as 'a failure to engage in conversational pausing' (Mohr, 1982: 401) or 'voluble speech' (Dalman & Eling, 2000: 248). In conversation, Jun rarely pauses or makes eye contact with his interlocutor. His responses are often lengthy and tangential, unrelated to the questions posed. This challenges non-aphasic conversational partners, who struggle to determine appropriate moments to enter the conversation, disrupting fluent turn-taking.

The data examined in this chapter show that the SO often interjects when the person with aphasia exhibits a 'press of speech'. These interjections typically occur after a possible completion of a 'transitional-relevance place' (TRP) (Hayashi, 2012: 188) and are aimed at performing other-repair (Schegloff et al., 1977; Schegloff, 2001). HCP, on the other hand, rarely stops Jun's turns despite his responses mismatching the questions. Instead, she utilizes continuers, such as head nodding or response tokens like oh, emm, and ah, to acknowledge his speech. Only in a few cases does the HCP interject during Jun's turn to provide anticipatory completions (Lerner, 1996; Beeke et al., 2020).

Section 6.3 examines interactions between Jun, the person with Wernicke's aphasia, and his father, the SO. It then analyzes his interactions with the HCP (therapist, abbreviated as TH). The focus is on how the HCP (TH) and SO (father) manage instances when Jun exhibits 'press of speech' in interactions.

6.3.1 Jun-Father Interactions

This section examines Jun's everyday conversations with his father. First, in section 6.3.1.1, I present examples where turn-taking occurs smoothly. Then, in section 6.3.1.2, I highlight instances where Jun's 'press of speech' creates challenges for turn-taking and how his father manages these situations.

6.3.1.1 Fluent Turn-taking Between Jun and Father

Section 6.3.1.1 shows Jun can successfully answer a question without extending his turn. In these cases, turn-takings between Jun and his father are fluent.

Extract 11 'be a caregiver after recovery'

	001	F:	you shenme dasuan bing hao le yihou
			have what plan illness good PFV after
			do you have any plans after recovery
→	002	Jun:	bing hao le yihou keyi shang yiyuan li gan hugong
			illness good PFV after may go hospital do carer
			after recovery (I) can work as a caregiver
	003	F:	((xiao))ni qu le renjia pin ni jiu xing
			you go PFV other recruit you just okay
			((laughters)) only if they hire you

In Extract 11, the father asks Jun about his plans after recovering from a stroke. Jun responds by saying he might work as a caregiver. He begins his reply by repeating part of his father's question *after recovery*, then gives his answer: *work as a caregiver* (line 2). Jun keeps his response brief and does not elaborate further (as he usually does). Following the possible completion of Jun's turn, the father laughs and playfully comments *that only if they recruit you* (line 3).

Extract 12 'read newspapers'

	001	F:	jiaruo na ge bingqing huifu bu liao jiu shi
			if that CL condition recover N AUX just be
			if you know your condition couldn't get better
	002		renjia ye mei dadao zanzhu ni de mudi dui ba
			other also N reach sponsor you NOM aim right AUX
			they won't reach their aim to sponsor you right?
→	003	Jun:	dui a suoyi xianzai shenti neng man man huifu le
			right PRT so now body can slow slow recover PFV
			right so everthing would be ok if my physical
→	004		jiu xing le me
			just okay PFV
			condition slowly get better

005 F: dui dui zhuajin shijian huifu
right right hurry realise recover
right right focus on recovery for now

Similarly, in Extract 12, while the father talks about people's sponsorship for Jun's stroke (line 1), he comments that their efforts would be in vain if Jun failed to recover (line 2). In line 3, Jun responds with the agreement token *right* and continues to endorse his father's comments, saying that *everything could be ok if his physical condition gets better*. Once again, in this turn, Jun stops talking after the turn reaches semantic, syntactic and prosodic completion. Father responds to Jun's turn with acknowledgement *right* and concludes by saying Jun should *focus on recovery now* (line 5).

In the above extracts, Jun manages to provide proper answers to his father's question. He is also able to stop his turn at a possible turn completion place in answering (Sacks et al., 1974). The conversation progresses smoothly.

6.3.1.2 Father's Turn Incursion into Jun's Turn

Jun's speech is frequently marked by a 'press of speech', resulting in long, continuous responses that are topically related to the question but do not directly address it. This creates challenges for turn-taking. The father is often observed entering Jun's turn—sometimes overlapping with Jun's speech—to initiate repair by reformulating his question for clarification (as seen in Extracts 13-14) or by providing an answer on Jun's behalf (as in Extracts 15-16). These interruptions typically occur mid-turn. Section 6.3.1.2 explores how and when the SO enters the conversation dealing with Jun's press of speech.

In Extract 13, Jun responds to his father's question (lines 1-3) with a lengthy and uninterrupted turn of talk (lines 4-14) that does not directly address the question. His father interjects in line 15 while Jun is still speaking (line 14).

Extract 13 'did your physical strength recovered'

001 F: ni zhe xianzai gan - ganjue ni zhe ge ti li
you this now fe – feel you this CL body strength
now you fe-feel your you know physical strength

002 bi zai zhu yuan de shihou shi chongfen le
compare at stay hospital NOM when be enough PFV
compared with when you were at the hospital have it

003 hai shi (.)hai shi jiantui le
still be still be weak PFV
been improved or (.)or been weakened

004 Jun: e (deyi) zai yiyuan li ((ai))ye shi z - zai
PRT praraphasia at hospital in INT also be a at
uh (mey) at the hospital ((sigh)) also a-at the

005 yiyuan li tang zhe zaochen chi fan chi ge jidan
hospital in lie AUX morning eat meal eat CL egg
hospital lie down have meal in the morning have eggs

lines 6-13 are ommited/(Jun talks about meals)

→ 014 zai yiyuan li jiu shi zheme, zhe [sheng xia de
at hospital in just be such this left down NOM
at hospital just like this the [leftovers

→→ 015 F: [NI ZHE GE
you this CL
[YOU YOU KNOW-

016 wo na ge yisi shi ni jiu shi chu yuan yihou
I that CL meaning be you just be out hospital after
I mean you know after you moving out of the hospital

017 ni zhe ge ti li (.) shi bu shi huifu le
you this CL body strength be N be recover PFV
your physical strength (.) is it recovered or not

018 ganjue bi yuanlai you jinr la
feel compare before have strength AUX
do (you) feel have more strength than before

019 you zhe ge ganjue ma
have this CL feel AUX
do you have such feelings

020 Jun: a you a kending-ni-wo keyi zai er yuan zhe
PRT have PRT certain you I may at two hospital this
a (I) have certainly-you-I may at second hospital

021 ge zai er lou li-zai er lou li bu jiu zuo kangfu
CL at two floor at two floor in N just do physio
you know at second floor-at second floor do physio

022 ta you -ta you zai tui shang da zhen - zhenjiu
it have it have at thigh up hit needle acupuncture
there's-there's needle on thigh-acupuncture

023 hai you zai tou shang zuo jinglu
still have at head up do transcranial
also they do transcranial acu on head
(Jun continues talking about his physio at hospital)

In lines 1 to 3, the father asks Jun whether his physical strength has improved or weakened compared to when he was in the hospital. Jun fluently starts his turn in line 4 with a particle *uh* (Heritage, 2013) and a phonemic paraphasia (Butterworth, 1979) response *deyi* (*mey*), resembling the real word *keyi* (*may*), signs that he is having difficulties in producing the expected answer. In the rest of his turn, he continues by repeating part of his father's turn *at the hospital*, following which he fails to progress his turn and what occurs following this repletion is a *sigh*. He then continues his turn by adding a cohesive device (Bublitz, 2011) but fails to progress the turn again and falls back to repeat *at the hospital* in line 5. Following the second repeat of the phrase *at the hospital* from his father's turn, he starts to ramble about things that he did at the hospital from line 5 to line 14, covering his meal and his life. However, he does not provide any information regarding his physical strength. These linguistic outputs show that Jun struggles to answer this question, yet his press of speech prevents him from stopping despite his difficulties in answering.

While Jun continues his turn with something related to *leftovers* in line 14, the father steps into his turn in an overlap with Jun's talk with, *you-you know*, with an increased volume. He repairs it with a meaning clarification phrase to clarify his question. In the following talk, the father redesigned his question (Drew, 2013). Unlike the question he produced in lines 1 to 3, the father reformulates his question by topicalizing each different chunk from line 16 to line 19. He first topicalizes *after you move out of the hospital* (line 16), then topicalizes *your physical strength* (line 17) and asks whether *it has recovered or not* (line 17). He also reformulates the question immediately with *Do you feel you have more strength* (line 18). By doing so, he helps Jun understand his question chunk by chunk. In line 20, Jun responds with a change of state token *ah* (Heritage, 1984), and *I have certainly* answered that. He then continues to talk about the physiotherapy he did in the hospital, and another case of 'press of speech' occurs.

In this extract, following one of his TRPs and at the beginning of a new TCU, the father enters his turn overlapping with his coming TCUs (line 15) to stop his turn progression and repair the talk by redesigning his question. The position father interjects is where Jun projects a multi-TCU turn, starting with the new TCU *and the leftovers*. Knowing that the rest of Jun's turn may be related to leftovers rather than the content required by the question, the father takes his turn without waiting for a TRP and redesigns his question to repair the talk (Kendrick, 2015; Bolden, 2011).

Extract 14 provides another instance where Jun's response fails to address the question. While the father asks a question about reading (line 1), Jun responds by discussing his daily routine in the hospital (lines 3-7). The father interjects during Jun's turn in line 8 while Jun is still speaking (line 7).

Extract 14 'I know'

001	F:	ni zai yiyuan de shihou bu shi yijing-bu shi yijing *you at hospital NOM when N be already N be already* **didn't you-didn't you start reading when you were**
002		kaishi du le ma *begin read PFV AUX* **at the hospital**

→	003	Jun:	zai yiyuan li dui ya guanjian zai yiyuan li ye you- *at hospital in right PRT key at hopsital in also* **at the hospital right ya-the key is at the hospital**
	004		you shenme en: bu shi -ni kan zai yiyuan li zaoshang *have what emm N be you look at hospital in morning* **it also has-has what uh: no -you see in hospital**
	005		chi fan zhongwu chi fan wanshang chi fan hai you *eat meal noon eat meal night eat meal still have* **breakfast in the morning lunch at noon dinner at**
	006		hu gong dai wo qu e: zuo kangfu ranhou *care worker take I go PRT do rehabilitation then* **night also the carer giver take me to uh: do physio**
→	007		e: ziji neng zou a wo jiu bu yong zuo lunyi a:= *PRT self can walk PRT I just N use sit wheelchair I* **then uh: I could walk I don't need wheelchairs ah:=**
→→	**008**	F:	=wo zhidao(.) ni zhe ge zai yiyuan de shihou – nan *I know you this CL at hospital NOM when south* **=I know (.) when you were at the hospital-southern**
	009		yuan de shihou yuyan fangmian zenme duanlian de *hospital NOM when language aspect how exercise NOM* **hispotal in terms of language how to practice**
	010		zenme gei ni zhiliao *how give you treat* **how do they give you treatment**
	011	Jun:	zai yiyuan, yo-ta you na ge gei ni anmo anmo *at hospital it have that CL give you massage massage* **in hospital they offer massage to my**
	012		shoubi a tui a gei wo zhazhen a e: zuo *arm PRT leg PRT give I needle PRT PRT do* **arms A legs A they give me needles A uh:**
	013		zhenjiu a *acupuncture PRT* **acupuncture treatment A**

In responding to his father's question about whether he was reading while in the hospital (line 1), Jun begins his turn by repeating a turn construction unit (TCU) from his father's earlier statement about the hospital (line 2). This repetition, often a strategy employed by persons with aphasia to process and respond to questions, is followed by a self-directed phrase, *right, yeah,* in line 3, suggesting self-assurance (Bolden, 2006). He then attempts to restart his turn with the phrase, *the key is in the hospital, it has—.*

Another difficulty arises when a content word is expected to follow. Jun struggles to progress his turn and initiates a self-repair with *no* (line 4) (Schegloff et al., 1977). Immediately after this, he makes a third attempt by topicalizing his speech with, *you see, in hospital* in line 4 (Pan & Hu, 2000). He then elaborates on this topic using a comment structure (Li & Thompson, 1989) to discuss meals (lines 4-6) in the hospital, which is irrelevant to his father's question. Once again, Jun's response fails to address his father's question.

In line 7, Jun continues his turn with *I don't need a wheelchair ah:*. It is important to highlight the turn-final particle *ah*. This particle is an attached *ah* (in contrast to a formulated *ah*; for a discussion of the difference, see Wu, 2004), meaning that its omission does not impact the proposition or meaning of the utterance. Instead, its function is to indicate that Jun intends to hold the turn. The stretched production of *ah* further reinforces this turn-holding aspect, signalling that he is not yet finished speaking. In line 8, Father enters Jun's turn with *I know*, indicating his prior knowledge of this fact (Heritage, 2012), and, therefore, the inadequateness of the response. The father then rephrases his question again by topicalizing the place *when you were at the hospital* (line 8), followed by the topic *in terms of language* (line 9), before finally asking *how they give you treatment* (line 10). Despite this reclarification, Jun still shows a lack of understanding and responds with information about his physiotherapy.

In Extract 14, father again makes a turn incursion to halt Jun's turn to prevent the conversation from straying off-topic. By claiming epistemic authority with *I know* (Heritage, 2012), the father legitimizes his entry to the turn-in-progress. Through rephrasing the question, father redirects the conversation to the targeted track of discussing his speech and language therapy.

Extracts 15 and 16 exemplify instances in which the father interjects during the turn of the person with aphasia upon observing that the conversation is beginning to deviate from the topic. His interjection serves to redirect the discussion and provide a response to the initial question.

Extract 15 'how long have you moved out of the hospital'

	001	F:	ji ge yue le chu yuan *several CL month PFV out hospital* **how long have you moved out of the hospital**
	002	Jun:	ji ge yue chu yuan zai yiyuan li *several CL month out hospital PREP hospital PREP* **how long have I moved out of hospital**
	003		zhu le liang ge yue xianzai bu jiu hui jia *stay PFV two CL month now N just back home* **(I) stayed in hospital for two months now didn't I**
→	004		le ma hui jia le yihou= *PFV AUX back home PFV after* **come home after getting back home=**
→→	005	F:	=wu yuefen chu le yuan *five month out PFV hospital* **=(you) moved out of the hospital in May**

```
006          [liu  qi    ba          ] chu yuan san ge yue
             six seven eight          out hospital three CL month
             [June July  August      ] for three months now
             [((counts with finger))]

007  Mom:    si    ge yue le
             FOUR CL month PFV
             four months (voice from far away)

008  Jun:    o   dui    o    ai san  ge yue   o
             PRT right PRT PRT three CL month PRT
             oh right oh yes for three months oh
```

In line 1, the father asks Jun how long he has been out of the hospital. Jun begins his response by repeating his father's turn in line 2. It is important to note that this is a word-for-word repetition, as personal references (you in line 1; I in line 2) are often omitted in Mandarin (Chao, 1979). In the English transcript, these personal references are included to enhance comprehension. Although this initial repetition allows Jun to start his turn fluently, it also foreshadows his difficulties in directly answering the question.

In his subsequent turn, Jun fails to provide a direct answer. Instead, he continues with additional details about his hospital stay, stating, *I have been staying in the hospital for two months* (line 3). As his turn approaches a possible completion, he introduces another TCU with *now* (xianzai) (line 3), indicating that more TCUs are forthcoming.

As he nears another TRP for completion, Jun continues with a topicalized utterance *after getting back home* (line 4), which suggests that he will elaborate further. This topicalized TCU not only signals the upcoming multi-TCUs but also implies that the content may pertain to his experiences at home. Just before Jun can elaborate on his turn, the father interjects, providing the answer on Jun's behalf.

From lines 5 to 6, the father not only delivers the answer but also explains how he arrived at the conclusion of three months by listing the months: June, July, and August. Although Jun's mother later repairs the answer in line 7, Jun acknowledges his father's response in line 8 by using change-of-state tokens, such as *oh*, and confirmation tokens like *yes*, along with a repetition of his father's answer, which demonstrates his acceptance and understanding.

Similarly, in Extract 16, Jun's responses (lines 5 to 8) are related to the answer but do not address it directly. He continues his turn following each TRP. In line 8, the father comes into Jun's turn space after Jun starts a new TCU following a TRP (Sacks et al., 1974).

Extract 16 'do you feel your pronunciation is getting better'

```
001  F:      zhe xianzai chu yuan yihou ni ganjue bi  zhu
             this now out hospital after you feel compare stay
             after you moving out of the hospital do you feel

002          yuan     de shihou zhe ge-zhe   ge yuyan
```

hospital NOM when this CL this CL language
you know - you know your you know language-

003 -fayin shi shi bi yiqian hao le
pronunciation be be compare before good PFV
-pronunciation is better or worse

004 hai shi cha le
still be bad PFV
than before

005 Jun: xianzai neng shuohua la yiqian bu hui shuohua
now can speak AUX before N can speak
now I can speak before I can't speak

006 xianzai ziji neng xiang qi lai wo jiu keyi shuo
now self can think up come I just may speak
I can think of things now then I may speak

007 shuo hua dui a wo ziji man man duanlian
speak word right PRT I self slow slow practice
right A I can practice slowly by myself

→ 008 mei shier=
N thing
if there's nothing =

→→ 009 F: =xianzai shuohua wo juede bi zhe ge chu yuan
now speak I think compare this CL out hosptal
=I think now you speak much you know better

010 chu-chu-chu yuan qian yao hao duo le
ou ou out hospital before want good many PFV
than when you first moved out of the hospital

011 Jun: a
PRT
ah

In Extract 16, the father inquires whether Jun has improved his language ability since leaving the hospital (lines 1 to 4). A direct response could indicate that his language is either improving or deteriorating. Instead of providing a clear answer, Jun describes in line 5 that he can now speak, contrasting this with his previous inability to do so, which suggests that his language ability has improved. Following this initial TRP, he adds in line 6 that he can think of things and may speak, creating an additional TRP that allows for the possibility of the other participant contributing.

Jun then engages in self-directed speech (Bolden, 2006) with the phrase right A (line 7), implying a form of self-assurance. He continues discussing his language practice without pausing in the same turn. Upon reaching another TRP, he introduces a new TCU with when available (mei shier) in line 8, indicating that he has more information to convey in the following turn. At this juncture, the father interjects to provide an answer, effectively interrupting Jun's continuous turn.

In Extracts 15 and 16, Jun's responses do not directly address the questions; instead, he elaborates on ancillary details. In both instances, the father interjects during Jun's turn after he initiates a new TCU that signals the potential for additional TCUs, thus interrupting Jun's ongoing speech to provide the answer.

6.3.1.3 Summary of Jun-father Interactions

Jun's responses to his father's questions are typically prolonged and continuous in the examined extracts. The content of these responses often does not align with the questions' requirements (Raymond, 2003; Fox & Thompson, 2010). As he extends his speech beyond the likely completion of a TRP, it becomes increasingly complex for the father to take a turn. If the conversation continues uninterrupted, Jun's response may drift further away from the original question. The father interjects during Jun's turn either in overlap with his upcoming TCUs (as seen in Extract 13) or after Jun initiates a new TCU, which usually indicates that more TCUs are forthcoming (as shown in Extracts 14-16). In these instances, the father seeks to redesign his question or provide an answer for Jun, thereby steering the conversation back on track.

6.3.2 Jun-Therapist (TH) Interactions

Jun's speech exhibits patterns similar to those observed at home in medical settings. He seldom pauses during his turn, and his responses often do not address the questions posed to him. The interactions between the therapist (TH) and Jun indicate that the therapist rarely stops Jun's extended turns, even when his responses mismatch the questions. Instead, she utilizes continuers, such as head nodding or response tokens like oh, emm, and ah, to acknowledge his speech. However, in a few cases, the therapist does come into Jun's turn to provide anticipatory completions (Lerner, 1996; Beeke et al., 2020).

Section 6.3.2 presents how the therapist responds to Jun's 'press of speech' in interactions. I start with cases where the therapist enters Jun's turns and adeptly builds on his turns with anticipatory completions (Extracts 17-18). I then present scenarios when the therapist sustains Jun's contributions through subtle continuers such as acknowledge tokens *oh* and affirmative *nods* (Extracts 19-20) despite his extended turns and not fully addressing the questions posed by the therapist.

6.3.2.1 Prioritizing Progressivity: Therapist (TH) Provides Anticipatory Turn Completions

Anticipatory turn completions are constructed grammatically contiguous with a TCU already in progress, and they formulate a completion to that TCU (Lerner, 1996; Hayashi, 2012). This type of completion demonstrates the cooperative nature of turn-taking. By completing a speaker's turn, the listener can show that they understand and agree with what is being said. In HCP-PWA interactions, the HCP is found seldom coming

into a person with aphasia's ongoing turn. The only few cases she steps into the person with aphasia's turn are when she provides anticipatory completions for him. Extracts 17 to 18 will illustrate this issue in detail.

Extract 17 is taken from Jun's description of his visit to Yingxiongshan Mountain. Line 1 occurs when Jun shows the therapist videos/pictures of his visit to Yingxiongshan Mountain. During the conversation, Jun holds a phone, and Jun and the therapist look at the phone while talking. While Jun continues his talking (line 4), the therapist completes it with an anticipatory completion (line 5).

Extract 17 'Mao Zedong'

	001	Jun:	wo pai de hen duo hai you ni kan wo shang le
			I take NOM very many still have you see I up PFV
			I took a lot also you see I went
	002		na le zhe shi ni kan wo-wo qu le na ge ying-
			that CL this be you see I I go PFV that CL name
			to you know this is you see I-I went to the Ying-
→	004		yingxiong shan zhe bu shi you ge=
			name mountain this N be have CL
			-Yingxiongshan mountain isn't there a=
→→	005	TH:	=Mao Zedong
			Mao zedong
			=Mao Zedong
	006	Jun:	Mao Zedong
			Mao zedong
			=Mao Zedong

In line 1, Jun states that he took many photos. He then continues his turn with the cohesive word also, suggesting that more information will follow. In the rest of his turn, Jun initiates a new TCU with you see and continues with I went to. At this point, where a content word is expected, he encounters difficulties in producing the target word. This struggle is evident in his use of word-finding indicators such as *you know* (line 2) and another attempt to formulate the response with *this* (line 2). Instead of providing a direct answer, he recycles his previous TCUs, stating you see, *I went to* (line 2). Eventually, he suggests a possible target, Yingxiongshan Mountain, in line 4. As his turn approaches a potential transition-relevance place (Sacks et al., 1974), the therapist does not take the turn. Jun continues with *Isn't there a…* in line 4, the therapist fills the gap with the anticipated TCU *Mao Zedong*, likely referring to the photo they are looking at together. Jun then accepts this completion by repeating *Mao Zedong* in line 6.

Extract 18 occurs during a catch-up conversation between Jun and the therapist (TH) following Jun's return to the hospital for a routine physical examination approximately four months after he moved out. In this extract, when Jun delivers the first half of his turn, the therapist fills in Jun's rest turn with a turn completion (line 23).

Extract 18 T-Jun 'express inaccurately'

	001	T:	na ni xianzai huifu de hai xing ma

			then you now recover NOM still okay AUX
			then how's your rehabilitation is it ok
	002	Jun:	wo xianzai huifu de yiqian wo lian shuohua dou
			I now rehabilitate NOM before I even speak even
			my rehabilitation before I can't even speak
	003		bu xing dangshi hunmi le ziji jiu you dianr you
			N okay then coma PFV self just have point have
			I was in a coma it seemed like I was just kind of
	004		dianr choufeng
			point stroke
			stroke
			line 5-line 20 being ommited
	021		wo keyi zilì danshi ne you xie shir ne keneng
			I can self-care but AUX have some thing AUX maybe
			I can take càre of myself but something happened
→	022		wo ziji=
			I self
			maybe I=
→→	023	T:	=biaoda bu qingchu
			express N clear
			=express inaccurately
	024	Jun:	yi shi e: bu hui biaoda er shi ne you xie shier
			one be PRT N can express two be AUX have some thing
			one is uh: not able to express the other is that
	025		ne wo xiang bu qi lai le
			AUX I think N up come PFV
			somethings I failed to think of them
	026	T:	o:
			PRT
			o:h

In line 1, the therapist asks Jun how his rehabilitation is going. Jun's response in line 2 begins with a turn-initial repeat of the therapist's previous phrase, *my rehabilitation*. He then provides a lengthy and somewhat unrelated explanation. Jun's response spans from line 2 to line 22, during which he discusses his overall life condition, his physiotherapy, his dietary habits, and how he manages daily tasks. Line 22 continues Jun's response to the therapist's question. As Jun begins to mention, *something happened, maybe I...* in line 23, the therapist interjects and contributes with a grammatically contiguous TCU to complete Jun's turn (Lerner, 1996). In line 24, Jun acknowledges the therapist's contribution and adds that he sometimes struggles to think of things. The sequence concludes with the therapist producing a third-position sequence closure *oh* (Schegloff, 2007).

Extracts 17 and 18 illustrate that the therapist does not take the turn from the person with aphasia while the person with aphasia continues speaking, even after possible turn completions. The therapist only interjects to assist the PWA with predictable TCUs. In both cases, the therapist comes into the person with aphasia's turn, provides the anticipatory completions, and then steps back to allow Jun to continue his turn. These turn incursions are structurally aligned and potentially affiliative as they assist the person with aphasia in completing his thoughts while maintaining the progressivity of the conversation.

6.3.2.2 Prioritizing Progressivity: Therapist (TH) Uses Response Tokens

In most cases, the therapist sustains Jun's contributions through subtle continuers such as acknowledge tokens and affirmative nods (Jefferson, 1984) (Extracts 19-20) despite his extended turns not fully addressing the questions.

In Extract 19, when asked to identify the era of the seal, Jun responds with information related to the seal but not about its era (e.g., lines 2 to 4; lines 9 to 11). The therapist, however, allows Jun to continue with acknowledgements (e.g., lines 5, 8, and 12) despite Jun's responses not addressing the original question.

Extract 19 T-Jun 'the seal you showed me, what era it belongs to'

	001	TH:	gangcai na ge yinzhang ta shi shenme niandai de *just that CL seal it be what era NOM* **the seal you showed me what era it belonged to**
	002	Jun:	yinzhang a ta- ta dou shi ni kan yinzhang tamen *seal PRT it all be you see seal they can* **the seals it-it all you see the seals they can**
	003		hui mai you de shuo ta na le bie de na ge na *buy some NOM say it take other NOM that CL that CL* **buy some say he takes other you know you know take**
	004		ge zhang lai tamen gei ni zai ke *seal come they give* you again carve **the seal they will carve for you**
→→	005	TH:	[o:] *PRT* **[oh:]** **[((nods head))]**
	006	Jun:	zhiyao neng ke fanzheng keyi gei kending ta *as long as can carve anyway may give certain it* **as long as it can be carved anyway may certainly**
	007		yao jiao dianr qian *should pay some money* **it needs to be paid**
→→	008	TH:	a dui *PRT right* **ah right**
	009	Jun:	ke chu ni kan ni ke ba ke ge shenme ni *carve out you see you carve AUX carve CL what you*

			carve you see you carve BA carve something
	010		kan you yang wen de you yin wen bu *see have yang pattern NOM have yin pattern N* **you see it has both yin pattern and yang pattern**
	011		yiyang *same* **not the same**
→→	012	TH:	o: *PRT* **oh:**
	013	Jun:	suoyi ta ta kan zenme ke *so it it see how carve* **so it it depends on how to carve**
→→	014	TH:	**oh**
	015	Jun:	wo ye renshi ta suoyi wo pai le yi xia ta shuo ni *I also know he so I take PFV one down he say* **I also knew him so I took some photos he said it's**
	016		yuan guo lai ke zhang ye xing a wo shuo wo *you willing pass come carve seal also okay PRT I* **okay you are willing to carve I said I didn't**
	017		mei dai qian wo guo lai guangguang *say I N bring money* I pass come around **bring money with me I just hang around**
→→	018	TH:	**oh**
	019	Jun:	ta na ge laoshi ye renshi wo ta shuo ni yao ke *he that CL teacher also know I he say you* if carve **he that teacher also knew me he said if you want to**
	020		zhang ni jiu ziji lai jiu xing seal you just self come just okay **carve you come directly**
→→	021	TH:	**((nods head))**
	022	Jun:	fanzheng jiu shi zhexie ba *anyway just be these AUX* **anyway that's it**

In Extract 20, the therapist asks Jun *which era the seal belongs to* (line 1), to which Jun should have given the answer of an era or a disclaim of knowledge. Due to his difficulty understanding, he failed to satisfy the topical agenda of the question (Hayano, 2013). In his responding turn, Jun starts with a turn initial to repeat *the seals* (line 2) but rephrases it with a TCU final particle *A* (Wu, 2004). This particle *A* functions similarly to the stretching sound to project the continuation of the turn. The turn initially repeats *the seals*, and the *A* here gives a clue to the therapist that the answer may not be straightforward.

Jun then continues with *it* but fails to complete his thought. He reiterates *the seals* with *you see the seals* (line 2) and expands further with *what they can buy.* In line 3, he adds new TCUs, stating *that some say he takes another seal; they then carve for you.* Jun's responses often lack coherence, as evidenced by his inconsistent use of personal references (the pronoun shifts from *they* to *he* and back to *they*).

In line 5, the therapist nods and offers an acknowledgement token to encourage Jun to continue. From lines 6 to 7, Jun elaborates further. While his first TCU is understandable *as long as it can be carved*, the subsequent TCUs become semantically and syntactically disconnected from their preceding or following units. His turns exhibit further inconsistencies as he continues, particularly in lines 9 to 10, 15 to 17, and 19 to 20.

Some of Jun's responses contain unclear personal references, such as *ta* (him/her) in line 15 and *na ge laoshi* (that teacher) in line 18. Despite these challenges, the therapist does not interrupt to correct or seek clarification. Instead, she responds to Jun by accepting his contributions with change-of-state tokens like *oh* (lines 5, 11, 13, and 17), *ah right* (line 8), and head nods (line 20), allowing Jun to maintain the turn.

Extract 20 is taken from a small talk between Jun and their therapist, where Jun mentions he watches Douluo Continent, a Chinese TV series adapted from a fantasy novel. The therapist raises a question on the show and asks Jun what Douluo Continent is about. In responding to Jun's responses, the therapist nods (lines 4 and 7) and responds with an acknowledgement token (line 9). As in the last extract, the therapist lets Jun dominate the conversational turns even though Jun's responses are incorrect.

Extract 20 T-Jun 'Doula Continent'

	001	TH:	ni shuo ta jiang le sha ba Douluo Dalu *you say it tell PFV what AUX Doula Continent* **tell me what is Douluo Continent about**
	002	Jun:	douluodalu hao ji ji a hai you *Doula Continent so several episode PRT still have* **Doula Continent has so many episodes A there's also**
	003		hai you muyangren ne muyangren ye keyi kan *still have shepherd AUX shepherd also may look* **there's also Shepherd (you) can also watch Shepherd**
→→	004	TH:	**((nods head))**
	005	Jun:	hai you hen duo /n/ dou keyi kan ni bu kan *still have very many /n/ all may watch you N watch* **also many others /n/(you) may watch all of them**
	006		dehua keneng ta jiu guoqi le *if may it just expire PFV* **if you don't watch they might be expired**
→→	007	TH:	**((nod head))**
	008	Jun:	dui ba mei shir kan kan mei shir kan kan *right AUX N thing watch watch N thing watch watch* **right? watch it when free watch it when you're free**

→→	009	TH:	a *PRT* **ah**

In Extract 20, instead of discussing the plots or stories of the TV shows, Jun provides information about *the Douluo Continent*, noting that it has many different episodes (lines 2 and 3). He then shifts his focus to *Shepherds*, which appears to be another TV show. As the therapist in line 4 nods to accept his information, Jun continues his turn to say that there is more that the therapist could watch, and then he proceeds to say that if he is not watching, it may expire from lines 5 to 6. In line 7, the therapist nods to let Jun continue. Jun continues by saying *watch it when free*, repeating it in the same turn (line 8). This is again being responded to with an acknowledgement (line 9) by the therapist.

Throughout this extract, Jun's responses are fluent and continuous. Although he uses relevant words related to the question, his answers do not directly address it. His responses drift further from the original question, moving from *the Douluo continent* in line 2 to *something that may expire* in line 6. Despite this deviation, the therapist does not interrupt or interject as the father did in Section 6.3.1. Instead, she sustains Jun's turn with acknowledgement tokens, such as nods (lines 4 and 7) and confirmation particles like *ah* (line 9).

Extracts 19 and 20 illustrate interactions between the HCP and the person with aphasia. During these interactions, the person with aphasia's turns are fluent and continuous but do not necessarily address the HCP's questions. Instead of redesigning her turn or providing answers for the person with aphasia, the HCP sustains his contributions by nodding and using acknowledgement tokens, allowing him to maintain the floor.

6.3.3 Summary of Jun-Father Interactions and Jun-Therapist (TH) Interactions

Section 6.3 presents conversations between Jun and his father, as well as Jun and his therapist (TH), with a particular focus on turn-taking. While turn-taking can be fluent in Extracts 11 and 12, Jun's 'press of speech' often affects it. His responses are typically continuous and do not directly address the questions posed. Following the completion of a TRP, Jun tends to carry on talking. This 'press of speech' creates challenges for turn-taking in conversation.

In the interactions between Jun and his father, the father frequently steps into Jun's mid-turn to halt its progression. He does this either by redesigning his turn to reclarify his questions (as seen in Extracts 13 and 14) or by providing an answer for Jun (as in Extracts 15 and 16). In healthcare settings, Jun's speech patterns exhibit similarities to those observed in his conversations at home. However, the therapist demonstrates some differences in managing Jun's continued turns. While she occasionally enters Jun's turn (as in Extracts 17 and 18), this occurs only in a few instances where she provides anticipatory completions. Unlike the father, who interrupts to stop Jun's turn progression, the therapist allows it to continue by adding structurally fitted TCUs. She usually does not interrupt Jun's ongoing turns, even when his responses do not match the questions. Instead,

she employs continuers, such as head nods or response tokens like *oh, emm*, and *ah*, to acknowledge his speech (as illustrated in Extracts 19 and 20).

6.4 Comparison of SOs and HCPs in Managing Wernicke's Aphasia

This chapter has examined interactions involving two individuals with Wernicke's aphasia: Jian, who has severe Wernicke's aphasia, and Jun, who has mild Wernicke's aphasia. Each individual interacted with a healthcare professional and a significant other. The analysis of conversations with different speakers affected by Wernicke's aphasia reveals that aphasia can create distinct conversational challenges for participants.

For Jian, the speaker with severe Wernicke's aphasia, his nonanswer responses—such as perseveration and jargon—make his speech difficult to understand. This disrupts the typical structure of conversation, where an FPP question is expected to be followed by an SPP answer. In contrast, Jun, who has mild Wernicke's aphasia, produces linguistic outputs that consist of real words without perseveration or jargon; however, his speech tends to be repetitive and continuous, characterized by a 'press of speech'. During conversations, he rarely pauses, and his responses are often lengthy and topically unrelated to the questions posed. Consequently, conversational partners frequently need to make turn incursions to take their turns or can only offer brief responses using acknowledgement, resulting in challenges in turn-taking. SOs and HCPs respond to these conversational problems in different ways during their interactions with people with Wernicke's aphasia.

In managing nonanswer responses produced by Jian, the SO often initiates repairs to seek clarification. She comments on and highlights the problematicity of the nonanswer response. This leads to the person with aphasia's perseveration on nonanswer responses (see Fig. 2). Consequentially, the conversation may be forced to stop, proceed into long silences, or result in participants dropping out. In contrast, the HCP, while also showing a problematic stance towards the person with aphasia's nonanswer responses through non-verbal cues such as laughter or frowning (Kaukomaa et al., 2014), may accept these responses with a sequence closing third token *oh/ah* (Heritage, 1984; Schegloff, 2007). Rather than focus on understanding the nonanswer response, she prioritizes sequence progressivity. This could be seen from the very different sequence structures in the above analysis (see Fig. 2 and Fig. 4).

In another family conversation, the father responds to Jun's 'press of speech' by stepping into Jun's mid-turn to halt its progression. He does this either by redesigning his turn to reclarify his questions (as seen in Extracts 13 and 14) or by providing an answer for Jun (as in Extracts 15 and 16). Unlike the father, who enters in the mid-turn and stops the turn progression, the therapist comes into Jun's turn to sustain its progression by adding in structurally fitted TCUs. The therapist usually does not disrupt Jun's ongoing turns, even when his responses mismatch the questions. Instead, she utilizes continuers, such as head nodding or response tokens like *oh, emm,* and *a*, to acknowledge his talk (Extract 19-20).

In interactions involving SOs and people with Wernicke's aphasia, SOs prioritize understanding the PWA during interactions. When the responses produced by the PWA do not provide interactional evidence that they have understood the conversation—and when these responses are problematic—SOs seek clarification.

Additionally, when the PWA speaks off-topic, SOs disrupt the conventional FPP question-SPP answer sequence structure (Schegloff, 2007) or the rules of turn-taking (Sacks et al., 1974) to initiate repairs in the conversation.

In conversations involving people with Wernicke's aphasia in healthcare settings, HCPs prioritize sequence progressivity (Schegloff et al., 1977). The therapist typically does not seek to understand what the person with aphasia means. When responding to sequentially anomalous nonanswer responses, therapist TG does not attempt to repair these responses (Schegloff, 1979) or seek clarification, even though she indicates an issue through non-verbal cues such as laughter or frowning (Kaukomaa et al., 2013; 2014). She closes the sequence with a change of state token, such as *ah* or *oh* (Heritage, 1984), thereby claiming her understanding of Jian. Similarly, in conversations with Jun, therapist TH allows Jun to continue speaking even when his linguistic productions are sometimes topically isolated from the question and syntactically anomalous to previous and/or following TCUs (Sacks et al., 1974). The therapist responds with acknowledgement tokens to demonstrate understanding (Heritage, 1984), sustaining Jun's turn rather than interrupting it as the SO father does. Instead of prioritizing understanding the PWA's linguistic production, therapists prioritize sequence progressivity (Schegloff et al., 1977).

6.5 Chapter Summary

This chapter has explored interactions involving two individuals with Wernicke's aphasia. We found that linguistic performances of Wernicke's aphasia (e.g., *jargon, perseveration, press of speech*) impact interactions on both turn level (i.e., turn-taking) and sequence level (i.e., sequence progressivity). Significant others and healthcare professionals may adopt different ways of managing these interactional issues, with the former prioritising understanding the PWA and the latter prioritising sequence progressivity.

Chapter 7 Discussion

This chapter summarizes the main findings of the study and discusses their implications in the context of existing research, specifically how the findings align with and contribute to the current body of knowledge. The chapter also outlines the study's strengths and limitations, offering suggestions for future research directions.

7.1 Summary of Findings

This section provides a summary of the study's findings. It first outlines findings on how aphasia impacts interactions involving individuals with aphasia. It then presents findings on how non-aphasic interlocutors, including HCPs and SOs, manage conversations with individuals with aphasia.

7.1.1 Findings on how Aphasia Impacts on Interactions

This study reported three main findings on how aphasia may impact conversation.

Chapter 4 examined how inattentiveness by PWA in conversation affects their recipiency and, therefore, their engagement. The findings suggest that while some PWA may be physically present and appear available to talk, their inattentiveness often limits their participation. Specifically, PWA in this study frequently did not exhibit readiness to engage in conversation or display recipiency (e.g., gazing at or orienting toward speakers) when addressed. As a result, inattentiveness contributed to reduced conversational engagement and posed challenges to communication.

Chapter 5 examined how PWA respond to test questions. My data showed notable differences in their performance depending on the interlocutor. Specifically, PWA struggled more when answering test questions from spouses than when interacting with therapists. When interacting with spouses, PWA faced significant difficulties. Spouses often pursued answers without providing helpful cues or support. This persistent pressure and negative emotional responses, such as annoyance from spouses, worsened PWA's struggles. As a result, PWA may respond with silence or errors and display increased frustration due to their difficulties in answering. In contrast, PWA had fewer difficulties during test question sequences with therapists, who typically offered more structured support and cues. This resulted in shorter interaction sequences and fewer negative emotional responses from PWA.

Chapter 6 enriched findings on how Wernicke's aphasia affects interactions. It highlighted how symptoms like jargon, perseveration, and press of speech can impact everyday conversation. Jargon and perseveration, referred to as 'nonanswer responses' in this study, disrupted the typical sequence structure of FPP questions and SPP answers. These responses did not resemble any real words, which made it hard for interlocutors to understand or correct. Even when interlocutors attempted to repair the conversation, PWA might keep repeating these perseveration responses, making communication even more challenging. Press of speech added another layer of difficulty. In interaction, PWA may talk continuously with irrelevant or off-topic content, often speaking beyond what was necessary or appropriate. This constant, unrelated speech made it

hard for others to take turns and could throw off the conversation flow. Although these issues have been recognized in clinical settings before (Marshall, 2016; Code, 1989), this study is the first to explore how they impact everyday interactions systematically.

7.1.2 Findings on how Interlocutors Manage Aphasia

The above behaviors exhibited by PWA impact both PWA-HCPs and PWA-SOs interactions. While both HCPs and SOs addressed these challenges in cooperation with PWA, their practices differed, reflecting their different ideologies and priorities in managing those problems. In my data, SOs acted in ways consistent with the belief that PWA should manage their own conversational difficulties (e.g., lack of engagement, errors, non-answer responses, or excessive speaking turns). When PWA were unable to resolve these problems, SOs held them accountable. In contrast, HCPs, such as therapists and nurses, typically followed practices that were aligned with professional and institutional standards (Drew & Heritage, 1992). As a result, they remained neutral, avoiding negative emotions or holding the PWA accountable for their difficulties. This difference was reflected in the distinct practices each group used to manage these issues.

7.1.2.1 Findings on Interlocutors Managing of PWA's Recipiency

In Chapter 4, when managing interactions with the three PWA who show inattentiveness in conversation, both HCPs and SOs used attention request sequences (e.g., verbal summons and gaze requests) to engage the disengaged PWA before initiating a conversation or producing an FPP to establish the participation framework (Goffman, 1979; Goodwin & Goodwin, 2004). Both HCPs and SOs employed a variety of attention-requesting practices (e.g., verbal summons, gaze requests, gestures, body orientations, moving chairs, etc.) to re-establish the participation framework when an FPP failed to elicit an SPP response due to a lack of recipiency (Schegloff, 2007). They continuously monitored and adapted to PWA's participation in the ongoing conversation. Attention requests may often require multiple attempts. The attention requests from non-aphasic interlocutors (both HCPs and SOs) and the reciprocal gaze or body shifts from PWA were joint efforts made by both parties to maintain the flow of the conversation.

While both HCPs and SOs collaboratively established a participation framework with PWA, their conduct towards the disengagement of PWA differed notably, and the practices they employed to establish participation frameworks and engage the participation of PWA were, therefore, also different from each other. These practices by HCPs combined utterances such as verbal requests with non-verbal tapping or touching to mobilize responses to the request. Their verbal productions took the form of deontically strong directives (Heritage, 2012). In PWA-SO interactions, the practices used by SOs to engage PWA were limited, less direct, more aggressive, and emotionally loaded. These practices showed, in one way or another, the spouse's disaffiliation with PWA's disengagement in conversation. Spouses acted in ways consistent with the 'idealization' that a person with aphasia should be as autonomous as a person with competent language ability.

7.1.2.2 Findings on Interlocutors' Managing of Test Question Sequences

In Chapter 5, when managing test question sequences in interactions with the two people with aphasia, both HCPs adopted an interactional style that co-constructed answers with PWA rather than fully providing or

withholding the answer. This approach allowed PWA to physically produce the word with the assistance of cues, partially satisfying the recipient's preference to respond (Stivers & Robinson, 2006). However, progressivity (Schegloff, 2007) was partially maintained because the answer was co-constructed.

Conversely, both spouses in this dataset prioritized PWA to provide answers themselves by withholding both the answer and cues, thus retarding sequence progressivity. While these practices meant that, in principle, PWA could answer the question without the assistance of cueing by the interlocutor, in practice, this did not typically happen due to aphasia. Instead, it highlighted the linguistic limitations and threatened the face of PWA (Brown & Levinson, 1987), leading to interactional discord. In addition, the preference for progressivity (Schegloff, 2007) was retarded with this style since the spouse persevered over several turns, attempting to elicit another try from the person with aphasia, and the test question activity can be longer than with other options.

7.1.2.3 Findings on Interlocutors' Managing of Wernicke's Aphasia

In Chapter 6, when managing the impacts on the conversation of the two people with Wernicke's aphasia, both SOs prioritized understanding PWA's meaning. In responding to the nonanswer responses produced by Jian, the daughter often commented on and highlighted the problematicity of a nonanswer response, initiated repairs and sought clarification on those responses. In another family conversation, the father entered Jun's extended turns either in an overlap with his upcoming TCUs or following his new TCU (which usually projects more TCUs to come) to redesign his question or provide an answer for Jun. Both spouses highlighted the meaning exchange in conversations with speakers with Wernicke's aphasia. Conversely, both HCPs prioritized sequence progressivity (Schegloff et al., 1977) over understanding the real meaning. In responding to the person with aphasia's nonanswer responses, therapist TG did not initiate repair but used non-verbal laughter and frowning to signal issues (Kaukomaa et al., 2013; 2014). They accepted the nonanswer responses and closed the sequence with a change-of-state token 'ah' or 'oh' (Heritage, 1984). This interaction followed a typical structure of question, nonanswer response, and sequence closure (Schegloff, 2007). Similarly, therapist TH allowed the person with aphasia, Jun, to continue speaking, even if his turns were linguistically off-topic or syntactically incorrect. The therapist kept sequence progressivity by responding to acknowledgement tokens rather than interrupting turn-taking to seek clarification.

7.1.2.4 Finding on Comparison of HCPs and SOs in Managing Aphasia

In responding to PWA, SOs across the three analysis chapters in this study acted in ways consistent with the belief that PWA should manage their conversational difficulties. They held the PWA accountable if they failed to produce an expected action. This often brought the problems to the conversational surface, especially when SOs displayed negative emotions in response to the PWA's failed social actions. For example, in managing disengagement in Chapter 4, SOs employed practices that show their disaffiliation to the PWA's lack of recipiency in the conversation. They used challenging questions (e.g., *Where are you looking?* in line 6 of Extract 11) and aggressive embodied gestures (e.g., *kicking* in line 6 of Extract 11; *punching* in line 29 of Extract 12) to elicit the PWA's recipiency in interaction. In managing incorrect or absent responses in test

question sequences in Chapter 5, SOs withheld cues and answers, asking PWA to produce the correct response independently. If the PWA failed to give the correct answer—especially after multiple attempts—the SOs held them accountable, often displaying negative emotions and challenging their inability to respond (e.g., lines 8 and 24 in Extract 5; line 10 in Extract 6). In managing Wernicke's aphasia in Chapter 6, family interlocutors highlight PWA's problematic responses, frequently initiating repairs or interrupting turns to seek clarifications (e.g., lines 9 and 11 in Extract 3; line 17 in Extract 4). They also laughed at the nonanswer responses (e.g., line 3 in Extract 4) produced by people with Wernicke's aphasia and commented on those responses. In general, the SOs' practices highlighted the PWA's linguistic limitations and threatened their face (Brown & Levinson, 1987).

HCPs, on the other hand, act in ways that minimise the problems caused by the condition and typically follow practices aligned with professional and institutional standards (Drew & Heritage, 1992). As a result, they remained neutral, avoiding negative emotions or holding the PWA accountable for their difficulties. In managing PWA's recipiency issues in Chapter 4, the nurse and the therapist employed verbal requests to seek mutual gaze (e.g., gaze to me) and non-verbal tapping or touching to mobilise responses to the request. Their verbal productions and embodied resources (e.g., body orientation, moving chair) were explicit, clear, and neutrally designed, free from emotional content. In test question sequences in Chapter 5, the two therapists co-constructed answers with the two PWA, offering cues and other forms of assistance. They did not treat the PWA's inability to answer as a failure independently, nor did they highlight problems caused by aphasia, as SOs often did. These interactions also remained free of negative emotional responses. In managing Wernicke's aphasia in Chapter 6, the two therapists do not attempt to repair trouble sources to understand the PWA's linguistic production. Instead, they often gloss over problematic responses using acknowledgement tokens, prioritising sequence progressivity and minimising problems caused by the aphasia. The HCP's practices seemed to minimise the conversational problems and maintained the face of the PWA (Brown & Levinson, 1987).

7.2 Implications of the Findings

This study has contributed to the current literature in two ways. First, it expands on existing findings regarding the impact of aphasia on the everyday communication of individuals with aphasia. Second, it adds to the research on how non-aphasic interlocutors manage conversations involving people with aphasia.

7.2.1 Implications on how Aphasia Impacts on Interactions

This study has expanded the existing findings on the impact of aphasia on everyday communication. Chapter 4 broadens the research by introducing PWA's lack of recipiency in conversation. Chapter 5 adds new dimensions to current studies on test question sequences by considering the frustrations of PWA and spouses in these question sequences. Chapter 6 presents new findings on how Wernicke's aphasia affects conversation, addressing the gap in current CA research on this type of aphasia.

7.2.1.1 Implications on Addressing Recipiencies in Interactions with PWA

Chapter 4 contributes to studies on how inattentiveness may impact conversation. In my data, I observed two individuals in the severe stages of aphasia who show a lack of recipiency in conversation. Although physically present, they showed little interactional participation, often by physically distancing themselves or gazing away. Extra interactional efforts are often needed to engage PWA, and maintaining their attention throughout the conversation can require repeated attempts (see particularly Extracts 8 & 9, Chapter 4).

The inattentiveness of PWA in conversation may reflect broader cognitive impairments that influence communication. While attention deficits are commonly associated with conditions such as acquired dyslexia and dysgraphia (McKenna & Warrington, 2009), they are also observed in individuals with severe aphasia. Many PWA, particularly those in the later stages of the condition, also have multiple medical conditions requiring medications that could further affect attentiveness (Code, 1989). Although the exact cause of inattentiveness in conversation remains unclear, its potential link to cognitive and medical factors may impact PWA's engagement. Future research could explore how cognitive-impaired attention deficits shape communication in aphasia further.

7.2.1.2 Implications on Test Questions in Interactions

Previous studies in clinical settings have explored how PWA respond to naming test questions (Wilkinson, 2013; Melino, 2018). This study expands on that research by examining test questions more broadly, including naming tasks and general information questions (e.g., where they live) in speech therapy sessions. Similar to naming tests, these sequences often extend when PWA produces incorrect answers.

Chapter 5 contributes to the existing research on test question interactions between PWA and their family members. Prior studies have noted that PWA frequently expresses negative emotions during test sequences with SOs. However, findings regarding the connection between test questions and negative emotional displays have been inconsistent. While some researchers (Lock et al., 2001; Burch et al., 2002; Bauer & Kulke, 2004; Barnes & Possemato, 2020) suggested that test questions can trigger negative emotions and recommended reducing their use in everyday conversations, others (Beeke et al., 2013) did not find a direct link between test questions and negative emotional displays.

This study offers new insights by showing that the PWA in this study does exhibit frustration and other negative emotions when struggling to answer test questions posed by family members, particularly spouses (see lines 8 and 24 in Extract 5, line 10 in Extract 6, and line 40 in Extract 11, Chapter 5). In contrast, such emotional displays are not observed when PWA interacts with therapists. Significantly, this study adds another dimension to the existing literature by highlighting that spouses themselves may display negative emotions during test question sequences. These negative emotions displayed by both spouses and PWA seem to be influenced by the particular style of questioning used by spouses, who often retard the progressivity of the testing activity in interaction. This will be further discussed in section 7.2.2.2.

7.2.1.3 Implications on Wernicke's Aphasia in Interactions

CA studies on fluent aphasia, particularly Wernicke's aphasia, are generally limited (Beeke et al., 2020). The existing research (most of which focuses on fluent aphasia but may include speakers with Wernicke's aphasia in their data) predominantly focuses on the word-finding difficulties faced by people with Wernicke's aphasia (Laakso, 1997; Laakso, 2003; Auer & Rönfeldt, 2004; Beeke et al., 2020), particularly the linguistic problems and their impact on repair. These linguistic issues include semantic errors (e.g., saying 'England' instead of 'Poland'), referential difficulties, mis-selection of gender pronouns, and other multiple referential incongruities (Beeke et al., 2020). Additionally, phonemic and semantic speech errors and the use of general or imprecise words are also observed (Laakso, 1997, 2003) in their speech. A common characteristic of these errors is their partial relationship to the target word—they often bear some similarity to the correct word.

Another key area of focus in these studies is whether PWA are aware of their errors. Due to the impaired auditory comprehension associated with Wernicke's aphasia, PWA often fails to recognize that they are making errors. Beeke et al. (2020) observed this in their study, where a speaker with Wernicke's aphasia exhibited no awareness of errors and did not repeat corrections provided by the non-aphasic party. However, Laakso (1997, 2003), in her studies on self-repair in conversations involving people with Wernicke's aphasia, found that speakers were more aware of their speech difficulties than traditionally assumed. When self-repairs occurred, they were often made in an aphasic manner, with distorted or generalized words that prompted further repair attempts by the speaker or co-participants. The use of general, simple words and the production of neologisms after several attempts at accurate expression suggest that PWA were somewhat aware of their speech issues and tried to avoid and correct errors.

Chapter 6 enriches this group of studies by examining two of Wernicke's aphasia speakers. One, with severe Wernicke's aphasia, appeared unaware of his speech difficulties, as evidenced by nonanswer responses. This lack of awareness was observable from two perspectives. First, the responses did not resemble any attempt to produce the target word or answer, often manifesting as jargon or perseverations (see lines 2, 4, and 6 in Extract 3; lines 2 and 4 in (Extract 4, Chapter 6). Second, despite being challenged by interlocutors in subsequent turns, he gave nonanswer responses, indicating his lack of awareness of the errors. The other speaker, with mild aphasia, could recognize his speech errors at the turn level but not at the sequence level. He produced lengthy, off-topic responses to questions, but within these lengthy productions, there were signs of self-repair attempts (e.g., see line 4 in Extract 14, Chapter 6).

These findings partially align with research on Finnish speakers with Wernicke's aphasia (Laakso, 1997, 2003) in that the speaker with mild aphasia shows awareness of self-repair at the turn level. They also partially align with Beeke et al.'s (2020) observation that Wernicke's aphasia speakers may lack awareness of their erroneous speech. However, in our data, the responses produced by the speaker with severe Wernicke's aphasia do not show any attempt to approach the target word or answer. One possible explanation for the discrepancies across studies could be the varying severity of Wernicke's aphasia, which may depend on the extent of brain damage and its impact on cognitive abilities. For instance, Laakso's study (2003) focused on

speakers with mild aphasia, classified at a severity level of one. In contrast, Beeke et al. (2020) examined speakers with moderate aphasia. However, the participants in this study have severe aphasia, which may account for the differences in repair.

Findings on Wernicke's aphasia in this study also contribute to prior research on the impact of Wernicke's aphasia on turn-taking. Auer and Rönfeldt (2004) have explored how symptoms of prolixity in Wernicke's aphasia affect turn-taking. In their study, Wernicke's aphasia speaker exhibited a decrease in volume when encountering word-finding difficulties, followed by an increase in volume once the correct word or a subsequent TCU is ready. This pattern allows the speaker to obscure their word-finding challenges while hindering turn-taking. In my data, Jun did not show notable variations in volume or prosodic features when continuing to speak. His speech was more like a continuous narrative. While prolonged speech was sometimes caused by self-repairing, it only occurred in a few cases (e.g., Extract 14, Chapter 6). More commonly, he talks off-topic and repeats himself in these turns (e.g., Extracts 16 and 19, Chapter 6). As a result, turn-taking in interactions with PWA is less frequent compared to interactions with neurotypical adults.

7.2.2 Implications on how Interlocutors Manage Interactions Involving PWA

The findings of this study have important implications for the role of interlocutors in interactions involving individuals with aphasia. Additionally, they enrich previous research comparing how HCPs and SOs respond differently to aphasia.

Aphasic interaction, like typical interaction, is inherently a multimodal, co-constructed process in real-time, situated contexts (Barnes & Bloch, 2019; Bloch & Beeke, 2008). CA studies on how interlocutors engage in PWA interactions have focused on various aspects. Previous studies have discussed how interlocutors cooperate with PWA to complete word searches (Oelschlaeger, 1999; Laakso & Klippi, 1999; Goodwin, 2003; Helasvuo et al., 2004; Auer, 2014; Laakso, 2015), how they withhold answers but provide cues to co-construct answers with PWA (Burch et al., 2002; Auer & Bauer, 2004; Aaltonen & Laakso, 2010; Beeke et al., 2013; Barnes & Possemato, 2020), and how they directly complete or correct PWA's turns (Laakso, 2015; Beeke et al., 2020). Another less frequently discussed way that non-aphasic interlocutors may employ in managing aphasia is their non-collaboration in problem-solving situations (Barnes & Ferguson, 2015; Auer, 2014). They may either gloss over the interaction using continuers or acknowledgement tokens or, as discovered in this study, refuse to assist (see Chapter 5). Additionally, studies have examined how non-aphasic interlocutors manage general repair strategies (Laakso & Godt, 2016; Barnes, 2016), co-construct telegraphic talk, or interpret gestures produced by non-fluent aphasia speakers (Goodwin, 1995; Heeschen & Schegloff, 1999; Goodwin, 2003; Klippi, 2015; Laakso, 2014).

This study contributes to this body of research by introducing how non-aphasic interlocutors manage recipiency issues caused by PWA's inattentiveness in conversation (Chapter 4). It also offers new insights into how non-aphasic interlocutors, especially significant others, may decline to provide cues or other assistance when conducting test question sequences with PWA (Chapter 5). Furthermore, it expands on previous literature by addressing how interlocutors manage conversations impacted by Wernicke's aphasia (Chapter 6).

7.2.2.1 Implications on Interlocutors' Managing of PWA's Recipiency

Prior studies have primarily focused on how non-aphasic interlocutors manage the effects of linguistic impairments on conversations (e.g., Laakso & Klippi, 1999; Goodwin, 2003; Laakso & Godt, 2016; Barnes, 2016; Beeke et al., 2020).

Chapter 4 introduces how interlocutors manage PWA's recipiency issues (i.e., inattentiveness) in conversation. In managing interactions with PWA who display inattentiveness in conversation, both HCPs and SOs use attention request sequences (e.g., verbal summons and gaze requests) to mobilize the attention of the PWA before initiating a conversation (see Extract 1) or produce a first pair part (FPP) (see Extracts 2-5 and Extract 10) in order to establish the participation framework (Goffman, 1979; Goodwin & Goodwin, 2004). Both HCPs and SOs use a variety of attention-requesting practices (e.g., verbal summons, gaze requests, gestures, body orientations, moving chairs, etc.) to re-establish the participation framework (see Extracts 6-9 and Extracts 11-12) when an FPP fails to elicit an SPP response due to a lack of recipiency (Schegloff, 2007). They continuously monitor and adapt to the PWA's participation in the ongoing conversation. Attention requests often require multiple attempts. The attention requests from non-aphasic interlocutors (both HCPs and SOs) and the reciprocal gaze or body shifts from PWA are joint efforts made by both parties to maintain the flow of the conversation.

Interlocutors' management of PWA's inattentiveness has contributed to the literature on PWA's conversation participation. Previous research, such as that by Simmons-Mackie & Damico (2009), discusses PWA participation in multi-party clinical therapy. However, their focus is more on how clinicians use gaze and body orientation to implicitly select the PWA for participation (Sacks et al., 1974; Goodwin, 1981). This is similar to how speakers select a neurotypical adult as the next speaker using gaze or body orientation in typical conversation. In parallel with the current study, Simmons-Mackie and Damico (2009) highlight the importance of gaze, gesture, and body orientation as resources for engaging participants. They also emphasize that successfully engaging a PWA is a joint effort between the clinician and the PWA. However, in their study, disengagement occurs because the person with aphasia is not invited into the conversation. This study expands on those findings in several ways. First, in this study, the person with aphasia is the only expected next speaker, and their disengagement results from inattentiveness rather than exclusion from the conversation. Second, this study emphasizes the distinct practices used by interlocutors as a separate action to explicitly and deliberately recruit PWA into the conversation, differing from typical conversational practices with neurotypical participants, where the next speaker is selected implicitly through gaze or body orientation (Goodwin, 1981) during other ongoing activities. Third, this study broadens the context by examining PWA's engagement in interactions with SOs, contrasting with prior research focusing solely on clinical settings (Simmons-Mackie & Damico, 2009).

The attention request sequence found in this study resembles the facilitation sequence proposed by Gan et al. (2023). In their study on grandparents mediating video calls between migrant parents and their children, they found that the grandparents use a range of linguistic, embodied, and material resources to

facilitate the completion of conversational activities. For example, following a question, if the child does not respond or show signs of recipiency (e.g., not gazing at the screen), the grandparent may employ a facilitating practice to prompt the child to answer.

This study is similar to Gan et al.'s (2023) work. First, participants in both studies show a lack of recipiency or responsiveness. In their study, children may not gaze at the screen when selected as the next speaker or, even if they do, may remain unresponsive. In this study, PWA displays similar inattentiveness, such as not gazing at the speaker or not responding. Second, both studies demonstrate that facilitation occurs in conversations involving speakers who are not fully competent, such as children in Gan et al.'s study and PWA in this one. Third, both studies discuss using various linguistic, embodied, and material resources to elicit a response or participation.

However, this study also highlights several differences. In Gan et al.'s (2023) study, an unaddressed recipient of an FPP often employs a practice to elicit a fitted SPP from the addressed recipient, thereby facilitating the completion of the sequence. In this study, where conversations are typically between two parties, the neurotypical participant initiates the facilitation (i.e., attention request) to ensure the sequence's completion. Furthermore, in this study, facilitation (i.e., attention request) can occur not only before a fitted SPP, as in Gan et al.'s (2023) facilitation sequence, but also before the conversation or the FPP, to set up the participation framework. In Gan et al.'s study, facilitation often involves verbal prompts to elicit a response (e.g., *youngest aunt, you say* in Extract 1).

In contrast, in this study, most facilitation takes the form of attention requests. Verbal attention requests are often accompanied by non-verbal actions, such as tapping or touching, to prompt a response (e.g., gaze or body shifts) from PWA. This difference may be linked to the nature of aphasia and the physical conditions (most PWA in severe stages of aphasia are also physically disabled) experienced by PWA in this study.

7.2.2.2 Implications on Interlocutors' Managing of Test Question Sequences

Test question sequences have been examined in the context of naming testing by professionals (Wilkinson, 2013; Melino, 2018) and home conversations (Lock et al., 2001; Burch et al., 2002; Bauer & Kulke, 2004; Beeke et al., 2013; Barnes & Possemato, 2019), with a focus on how interlocutors handle incorrect responses in these sequences.

Chapter 5 builds on prior research by exploring how therapists conduct test question sequences and introduce a distinctive way the two spouses in this data set engage in these sequences with PWA. When responding to an incorrect SPP production from a person with aphasia, HCPs often co-construct the answer with the PWA by cueing, hinting, or offering subtle guidance to help the PWA produce the word themselves. Rather than speaking on behalf of the PWA, HCPs facilitate the PWA's ability to speak for themselves. This approach aligns with previous studies on family interlocutors conducting test question sequences, which also emphasize cueing while withholding the answer (Lock et al., 2001; Burch et al., 2002; Bauer & Kulke, 2004; Beeke et al., 2013; Barnes & Possemato, 2020). In this study, significant others who engaged in test question

sequences with their husbands with aphasia used a style that withheld the answer and any related cues or information. They let the PWA produce the answer independently. These spouses responded to incorrect SPP attempts by repeating the test question (see lines 18 and 26 in Extract 5; lines 3, 7, and 9 in Extract 6; lines 10, 12, and 16 in Extract 7; line 3 in Extract 8; etc.) or prompting further attempts with tokens such as 'huh?' (see lines 14 and 30 in Extract 5; line 5 in Extract 6; line 25 in Extract 7; line 5 in Extract 8; etc.) These responses provided no additional information about the answer, implicitly communicating that the PWA should retrieve and produce the correct response independently (Auer, 2014).

In this discussion, I synthesize practices from previous research and observations from the current study on how interlocutors manage incorrect responses in test question sequences. I integrate these practices into an overarching framework considering whether the interlocutor prioritizes sequence progressivity (Schegloff, 1979; Stivers & Robinson, 2006). I present these practices along 'A Progressivity Continuum', which outlines three broad approaches for managing test question sequences: (1) Prioritizing progressivity (e.g., providing the answer relatively early on in the sequence). (2) Taking a 'middle way' approach (e.g., co-constructing the answer through cues without fully providing it). (3) Retarding progressivity (e.g., withholding the answer to let the PWA produce independently).

At one end of the continuum (as seen in Extract 1, Chapter 2), interlocutors prioritize progressivity by either providing the answer or abandoning the test question sequence if PWA struggles. This approach aligns with the interactional preference for progressivity (Stivers & Robinson, 2006; Schegloff, 2007), ensuring the activity is completed without delay. However, it sacrifices the preference for the recipient (the person with aphasia) to produce the answer themselves, thereby emphasizing the PWA's difficulty in responding.

In the middle of the continuum is an approach that partially adheres to progressivity. Interlocutors assist the PWA by co-constructing the answer, often through cueing (see lines 5, 9, and 11 in Extract 1; lines 6 and 7 in Extract 2; lines 7 and 10 in Extract 3; lines 3, 5, and 7 in (Extract 4). This approach partially fulfils the preference for the PWA to respond (Stivers & Robinson, 2006), as the PWA physically produces the word (or 'animates' it, Goffman, 1981), albeit with some assistance. If successful, this approach also respects the preference for progressivity (Schegloff, 2007) since the target word is produced. However, if cueing fails, interlocutors often shift toward providing the answer (see Extracts 1–3) or abandoning the sequence (see Extract 4).

At the opposite end of the continuum (see Extracts 5–9), interlocutors prioritize PWA to provide the answer independently, which is in accordance with the preference for the recipient to respond (Stivers & Robinson, 2006). These interlocutors avoid providing answers or even cueing the PWA, aiming to let the PWA respond autonomously. The sequence progressivity (Schegloff, 2007) is retarded, as interlocutors may persist over several turns in an attempt to elicit another response from the PWA, resulting in a prolonged test question sequence (see especially Extracts 5 and 6).

Interestingly, when spouses employ this 'retarding progressivity' style, more than just eliciting an answer is at play. They also hold the PWA accountable (Robinson, 2016) for not providing the correct answer. The lack of a correct answer is not treated as a neutral event; rather, it is often seen as a moral issue, with the PWA portrayed as blameworthy. Spouses may treat the PWA as not trying hard enough, especially if the PWA has made several unsuccessful attempts (see the discussion below on the link between extended attempts and being treated as accountable). This accountability is a facet of treating the PWA as an autonomous speaker, as the lack of success is perceived to be linked to something under the PWA's control, such as effort, rather than solely to the aphasia. This dynamic often leads to disaffiliate actions, such as reprimands or directives for the PWA to try again and displays of emotions like anger or annoyance (e.g., raised voices or tutting) (see, e.g., lines 10-12 in Extract 5; lines 7 and 9 in Extract 6; line 10 in Extract 10, line 25 in Extract 11). In response, PWA may exhibit emotional reactions, such as anger or bitter laughter (e.g., line 10 in Extract 6; line 2 in Extract 8). These finding sheds light on the variability of test questions, whereby some participants treat them as problematic and accountable (as with two SOs in this study), and some appear not to (or appear not to, at least in the data that is available to researchers: Beeke et al., 2013). It is unsuccessful answer attempts despite extending over a series of tries that are treated as accountable (by the interlocutor and/or the PWA). Since longer attempts are more likely to occur when the interlocutor employs a style which retard progressivity (since the PWA is neither assisted with cues nor given the answer), these displays of negative emotion are more likely to be seen in conversations where interlocutors adopt this style.

7.2.2.3 Implications on Interlocutors' Managing of Wernicke's Aphasia

Chapter 6 found that, in managing problematic responses produced by individuals with Wernicke's aphasia, HCPs may sustain the progression of the PWA's turn by adding structurally fitted TCUs (see lines 4-5 in Extract 17; lines 22-23 in Extract 18) (Lerner, 1996), though such instances are rare. This aligns with Beeke et al.'s (2020) findings, which showed that turn completion and next-turn correction were used by non-aphasic interlocutors to quickly remedy conversational issues in exchanges with people with Wernicke's aphasia. However, Beeke et al. (2020) stressed that conversational problems may surface in prolonged repair sequences if the interactional troubles (e.g., multiple referential incongruities) are complex.

Most of the time, HCPs do not disrupt PWA's ongoing turns, even when PWA's responses are a mismatch to the questions. Instead, they utilize continuers, such as head nodding or receipting tokens like *oh*, *emm*, and *ah*, to pass over their problems (see line 3 in Extract 7; line 3 in Extract 8; line 5 in Extract 9; line 8 in Extract 10; lines 5, 8, and 12 in Extract 19; lines 4, 7 and 9 in Extract 20). This way of managing problematic responses prioritizes sequence progressivity (Schegloff, 1979) at the sacrifice of understanding the real meaning of the PWA. This approach mirrors findings by Auer (2014) and Barnes and Ferguson (2015) regarding non-Wernicke's aphasia speakers, where interlocutors minimize the exposure of aphasia and its impact on conversation.

Auer (2014) introduced how a first-time interlocutor of a person with aphasia may ignore aphasia, treating the person with aphasia as a fully competent speaker. In his study, the interlocutor sequentially deletes

the PWA's contributions using continuers. For example, a non-aphasic interlocutor may respond with agreement particles to a person with aphasia's sparse response even though there is nothing to agree with in the PWA's turn. Barnes and Ferguson (2015) observed similar behaviour, where therapists of non-Wernicke's aphasia speakers respond to problematic talk with what they term 'receipting response'. Similarly, in this study, the therapists of Wernicke's aphasia speakers typically gloss over the PWA's problematic responses through acknowledgement or receipting tokens. One therapist (TG) accepts these responses and closes the sequences with change-of-state tokens *ah* or *oh* (see line 3 in Extract 7; line 3 in Extract 8; line 5 in Extract 9; line 8 in Extract 10) (Heritage, 1984), though she also indicates a problematic stance with it implicitly through non-verbal cues such as laughter or frowning (Kaukomaa et al., 2014; Wagner &Wilkinson, 2024). The other therapist (TH) responds with receipting tokens to the continued problematic talk produced by the PWA to sustain the PWA's contribution (see lines 5, 8, and 12 in Extract 19; lines 4, 7 and 9 in Extract 20).

While repair is the typical strategy for managing communication breakdowns (Schegloff et al., 1977), frequent repairs can highlight the presence of aphasia in the conversation. In interactions with PWA, increased repair frequency may emphasize the difficulties caused by aphasia. However, in managing Wernicke's aphasia, where issues such as jargon, perseverations, and off-topic responses are often difficult to understand and frequently non-repairable (Beeke et al., 2020), therapists, as discussed above, often opt to gloss over these problems. They minimize the exposure of aphasia by focusing on maintaining conversational flow. While this approach can camouflage aphasia, it also limits collaboration between interlocutors and PWA.

SOs' responses to problematic productions of the speakers with Wernicke's aphasia have revealed some differences from previous research (Beeke et al., 2020). Previous research on Wernicke's aphasia found that corrections were often made subtly, without drawing attention to errors, allowing the conversation to flow smoothly. However, this study shows that the SO of a speaker with severe Wernicke's aphasia frequently initiates repairs or comments on the PWA's jargon and perseverations (Marshall, 2016), bringing conversational problems to the surface. The SO also uses laughter (line 4 in Extract 3) to highlight the PWA's nonanswer responses (Wagner & Wilkinson, 2024), drawing attention to their problematic nature and underscoring the PWA's linguistic challenges. This difference may be attributed to variations in the trouble sources: in Beeke et al.'s (2020) study, the correct form of the trouble source could often be inferred from context or shared knowledge between interlocutors. They did mention that more complex troubles may result in prolonged repair sequences. In this study, the trouble sources (jargon and perseverations) mostly do not resemble any real words, and interlocutors may find it hard to correct them directly. Also, if the SO (the daughter) wants to understand what the person with aphasia (her father) means, she must initiate repair. She also laughs at and comments on these nonanswer responses. The SO's focus on understanding the person with aphasia by seeking clarifications and initiating long repair sequences often results in poor outcomes (e.g., retarding sequence progressivity (Schegloff, 1979)). The SO's management of these nonanswer responses may be linked to her limited knowledge of Wernicke's aphasia. The PWA cannot correct their responses due to a lack of awareness of errors, yet the daughter persists in initiating repairs on the trouble source. Despite her

efforts, there is typically no progress, as the PWA tends to perseverate on the same nonanswer. This ultimately leads the conversation to stagnate, resulting in its abandonment.

This study also adds to our understanding of how interlocutors manage prolonged turns by the speakers with Wernicke's aphasia. Previous research on speakers with Wernicke's aphasia has shown that PWA may engage in excessive talk and use interactional resources, such as varying their volume, to impede turn-taking (Auer & Rönfeldt, 2004). This study explored how interlocutors respond to such extended turns. In this study, turn allocation is imbalanced, with the PWA dominating most of the turns, continuing to speak even after a transition-relevance place (TRP). As a result, interlocutors have to interject into the PWA's turn to gain an opportunity to speak. These interjections typically serve two purposes: to clarify the SO's prior question—often prefaced with 'I mean'—or to repair a prolonged, off-topic response by answering on the PWA's behalf.

In summary, this study provides insights into how interlocutors address conversational challenges posed by Wernicke's aphasia. It suggests that some interlocutors, typically HCPs, interact in ways that minimize the impact of the aphasia by prioritizing sequence progressivity. In contrast, other interlocutors, such as SOs, focus on understanding the linguistic productions of the PWA, often at the expense of delaying sequence progressivity.

7.2.2.4 Implications on Comparing the Role of HCPs and SOs in Interactions Involving PWA

The data examined in this study support the view that HCPs and SOs manage aphasia differently (Lindsay & Wilkinson, 1999; Laakso, 2015; Laakso & Godt, 2016). In this study, SOs tend to prolong repairs and bring the problem to the conversational surface when managing aphasia. HCPs tend to minimize aphasia problems and prioritize sequence progressivity. SOs treat PWA accountable with negative emotions, and their practices in managing aphasia tend to threaten the PWA's face. HCPs' practices in managing aphasia are neutral and explicit, with no negative emotion displays; they tend to maintain the PWA's face (Brown & Levinson, 1987).

In Chapter 5, when managing problematic responses to test questions, the spouses persist over several turns to elicit another response from the PWA at the sacrifice of progressivity, resulting in prolonged test question sequences. In Chapter 6, when addressing problematic responses from individuals with Wernicke's aphasia, spouses initiate repeated repairs on the same trouble source to understand the jargon or perseverations produced by the PWA, leading to lengthy repair sequences. These findings are similar to Lindsay and Wilkinson's (1999) study, where spouses of PWA also brought repairs to the conversational surface, repeatedly modelling correct responses—even when the target word was already known—to elicit accurate responses. However, the findings differ from those of Laakso (2015) and Laakso & Godt (2016), where family interlocutors tended to resolve repairs more efficiently by providing turn completions or next-turn corrections. This difference may be attributed to several factors, including interactional goals, personal communication styles of family members, and the nature of the trouble sources. In the context of test questions—an institutional form of talk often aimed at language assessment or therapy (Drew & Heritage, 1992)—family members may prioritize training or testing their relative's language abilities (Aaltonen & Laakso, 2010; Barnes

& Possemato, 2019). As a result, they prioritize the PWA to produce a correct response at the expense of delaying conversational progressivity (Schegloff, 1979).

Additionally, family members may have distinct personal styles in how they converse with PWA. For example, in Chapter 5, spouses appear to prioritize the PWA in providing answers during test question sequences by retarding progressivity. By persisting through multiple turns, they provide the PWA with additional opportunities to self-correct, prolonging the test activity. Similarly, Lindsay and Wilkinson (1999) observed that spouses also adopted a style that prolonged repair sequences by repeatedly prompting for a correct response from the PWA. In contrast, Laakso (2015) and Laakso & Godt (2016) found that family interlocutors took an approach that could shorten repair sequences. These differing personal styles in managing aphasia may explain the variation in conversational practices and the diverse patterns of interaction observed in different studies of family interactions with PWA. Another factor contributing to these differences is the nature of the trouble sources. In cases of Wernicke's aphasia in Chapter 6, where the PWA's responses may bear little or no resemblance to actual words, resolving communication breakdowns becomes more challenging than resolving a word search or repair based on shared knowledge, as seen in Laakso's studies (Laakso, 2015; Laakso & Godt, 2016). Even when family members share background knowledge with the PWA, they may still struggle to understand the intended meaning, making direct repair difficult.

HCPs, on the other hand, act in ways that minimize aphasia problems and prioritize sequence progressivity in interactions with PWA. Findings on how HCPs respond to problematic responses from speakers with Wernicke's aphasia in Chapter 6 align partly with Lindsay and Wilkinson's (1999) observations on therapists' management of repair. This study and Lindsay & Wilkinson (1999) demonstrate that therapists tend to move the conversation forward rather than insist on a precise production from the PWA. While the therapists in Lindsay and Wilkinson's (1999) study first aim to grasp a general meaning from the PWA's output, in this study, the HCPs prioritize sequence progressivity (Schegloff, 1979) at the sacrifice of understanding the real meaning of the PWA. They use continues, such as head nodding or receipting tokens like *oh*, e*mm*, and *ah*, to pass over their problems (see Extracts 7-10 and Extracts 19 and 20 in Chapter 6). This approach mirrors Auer's (2014) and Barnes and Ferguson's (2015) findings regarding non-Wernicke's aphasia speakers. The different actions of therapists in this study can be attributed to the nature of Wernicke's aphasia, a type of fluent aphasia in which speakers may produce speech that is difficult to repair. They also often lack awareness of their errors and fail to self-repair, even when repairs are initiated. However, HCPs' management of test questions in Chapter 5 resembles Laakso's (2015) research on therapist management of word searches. In both studies, therapists co-construct responses with PWA without speaking for them. The therapists across the dataset adopt similar strategies of 'acting as a communication ramp' and not speaking for the PWA (Kagan, 1998). This is supported by data including fluent and non-fluent aphasia speakers, as found in Laakso & Godt (2016). In their study, although therapists co-construct or initiate repairs on PWA's responses, they tend to let the PWA solve the problems themselves (e.g., producing the answer). In Lindsay and Wilkinson's (1999) study, although therapists aim to curtail repairs, they still co-construct responses with PWA to arrive at a generally acceptable answer.

In addition to these comparisons with previous studies, this research introduces new perspectives. While earlier studies primarily focused on repair (Lindsay & Wilkinson, 1999; Laakso & Godt, 2016) and word searches (Laakso, 2015), this study also examines how HCPs and SOs engage PWA in interactions. In Chapter 4, when managing a PWA's disengagement, spouses display negative emotions toward the person with aphasia's inattentiveness. They treat the person with aphasia's disengagement as blameworthy. In contrast, HCPs use explicit, clear, and neutrally designed verbal productions and embodied resources (e.g., body orientation, moving a chair) that show no negative emotional involvement (Drew & Heritage, 1992).

One possible explanation for the differences between HCPs and SOs in managing aphasia is that their ideologies and priorities differ. In my data, SOs acted consistent with the belief that PWA should manage their conversational difficulties (e.g., lack of engagement, errors, non-answer responses, or excessive speaking turns). When PWA were unable to resolve these problems, SOs held them accountable. In contrast, HCPs, such as therapists and nurses, typically followed practices aligned with professional and institutional standards (Drew & Heritage, 1992). As a result, they remained neutral, avoiding negative emotions or holding the PWA accountable for their difficulties.

Additionally, HCPs hold an interactional ideology of assisting PWA in communication rather than speaking for them or highlighting their aphasia (Wilkinson, 1995). As a result, most HCP actions are co-constructive and avoid referring to or blaming PWA for aphasic lapses in conversation. In Chapter 4, when PWA lack recipiency, HCPs use explicit verbal and non-verbal resources to mobilize their recipients. In Chapter 5, when PWA fail to produce an SPP answer, HCPs provide cues to co-construct a correct answer. In Chapter 6, where unintelligible or problematic responses are given, HCPs often gloss over or minimize the issue, responding with receipt or acknowledgement tokens. However, in some instances, they may minimize the problem through turn completions (Lerner, 1996).

The difference between PWA-HCPs interactions and PWA-SOs interactions can also be partly attributed to the identity of the HCPs and the institutional nature of their role (Drew & Heritage, 1992). Professionals in institutional settings often exhibit a certain level of neutrality (Heritage & Greatbatch, 1988; Clayman, 1988) in alignment with the institutional context. In this study, HCPs do not display negative emotions towards PWA's inadequate responses. By contrast, the identities of spouses, parents, and children may allow for more personal attitudes (e.g., displaying negative emotions toward PWA, doing sort of 'aggressive' embodied gestures, and treating them as being blameworthy) in conversation. This explanation aligns with Lindsay and Wilkinson's (1999: 323) view that being a spouse and living with aphasic communication challenges allows for certain behaviours less evident in other types of interactions.

Another possible explanation for the differences between PWA-HCPs and PWA-SOs interactions is the level of knowledge that each interlocutor has about aphasia and the PWA's specific language disorder. For example, in Chapter 4, the spouse displays negative emotions to the person with aphasia's attention deficits. They treat the person with aphasia's disengagement as blameworthy. HCPs, on the other hand, do not display emotions in the sequences; they do not treat the PWA as blameworthy and engage the PWA prior to the

conversation by requesting their gaze. In Chapter 5, the spouse does not use cues to prompt the PWA to produce a correct answer in test question sequences. The PWA has to answer on its own without assistance. When the PWA fail to do so, spouses display opposing stances and blame the PWA for their inability to produce the answer. Again, therapists maintain a sense of neutrality and do not display emotional reactions to the PWA's behaviour (Drew & Heritage, 1992). They co-construct or provide the answer for PWA. These differences between HCPs and SOs, caused by varying knowledge about aphasia, are more evident in Chapter 6. In Chapter 6, therapists—who are more knowledgeable about aphasia—choose to gloss over jargon and perseverations without asking for clarifications, although they signal some problems with non-verbal cues. The family interlocutor, the daughter, who is less knowledgeable about Wernicke's aphasia, tends to ask for explanations of the jargon and perseverations.

While the reasons underlying the differences between PWA-HCPs and PWA-SOs interactions are complex, further comparative research can help us better understand their nature and how they may inform best practices for conversations involving PWA.

7.3 Strengths and Limitations

This study significantly contributes to the literature on CA in aphasia by introducing the first CA study using a Mandarin dataset. Previous research on aphasia in Mandarin-speaking contexts has predominantly focused on the linguistic production and comprehension associated with aphasia over the past three decades. Much of this work has centred on analyzing the abilities of PWA to produce and process tonal, lexical (e.g., nouns, verbs, compound words) (e.g., Bates et al., 1991), sentential (e.g., syntactic structures), (e.g., Wang & Thompson, 2022) and—only recently—discourse-level resources (e.g., Li & Kiran, 2024). However, this body of research has primarily examined language abilities in isolation from the social contexts in which everyday communication occurs, with limited attention to the behaviour of interlocutors who may, intentionally or inadvertently, influence how language is used in communication. This study addresses that gap by applying CA methods (Clift, 2016) to systematically investigate aphasia in a social context, specifically focusing on Mandarin speakers with aphasia. It highlights the importance of examining interactions within everyday conversations, considering both the PWA and their conversational partners. By doing so, the study enriches the understanding of aphasia as it occurs within real-world communicative environments.

The study draws on data from a large dataset of 30 PWA, including a sub-group of video recordings of 6 PWA in both home settings (conversing with family members) and hospital settings (interacting with healthcare professionals). This sub-group of 6 PWA recorded at home and in hospital settings was the focus of the thesis. This dual-context analysis enhances the growing body of work on aphasia by exploring and comparing conversations between PWA and healthcare professionals in clinical environments, as well as with family members or friends at home (Lindsay & Wilkinson, 1999; Laakso, 2015; Laakso & Godt, 2016). The study reveals notable differences in how non-aphasic interlocutors engage with disengaged PWA, manage test question sequences, and handle issues like jargon, perseveration, and the press of speech, particularly in cases

of Wernicke's aphasia. By juxtaposing interactions across these different settings, the study offers valuable insights into CA research on aphasia and how communication challenges are managed in diverse contexts.

Despite these contributions, the study has several limitations. One primary limitation is that it does not compare how HCPs and SOs respond to the same PWA across all analysis chapters. While Chapters 5 and 6 directly compare how HCPs and SOs respond to the same PWA during interactions, Chapter 4 examines interactions with different PWA when engaging with HCPs and SOs, respectively. Additionally, the analysis of interactions between SOs and PWA in Chapter 4 is based on a small dataset, as only one of the six collected family interactions involves a PWA's disengagement in conversation. This limited sample size may affect the robustness of the findings. Future research focusing on PWA with severe impairments, especially those with multimorbidity that could affect attention, would strengthen the study by providing a more comprehensive understanding of conversational engagement at home.

Another limitation lies in the structure of the analysis. In Chapter 6, family data is presented first to highlight what therapists do not do, whereas in the earlier chapters, the emphasis is placed on what spouses do not do. This arrangement is intended to highlight the differences between how HCPs and SOs manage aphasia, but it results in a different order across the chapters. While this choice aims to clarify these distinctions for the reader, it may affect the perceived consistency in the overall structure.

7.4 Future Directions

Future research should explore the differences in how HCPs and SOs respond to PWA and the factors contributing to these differences. While comparative studies in this area remain limited (Lindsay & Wilkinson, 1999; Laakso, 2015; Laakso & Godt, 2016), further investigation into the distinct interactional practices of HCPs and SOs, as well as the underlying factors shaping these practices, would deepen our understanding of aphasia management in different contexts. This study reveals that the practices employed by interlocutors when interacting with PWA often reflect their underlying attitudes or 'ideologies' (Simmons-Mackie & Kagan, 1999; Auer, 2014). These ideologies can shape how HCPs and SOs engage with PWA, influencing their communication approaches. Future research should focus on identifying the specific factors—such as beliefs, expectations, or conversational habits—that contribute to differences between PWA-HCPs and PWA-SOs interactions. Additionally, the research could explore whether addressing these broader ideologies, rather than targeting specific behaviours, may result in more effective communication with PWA, ultimately improving conversational outcomes in both clinical and home settings.

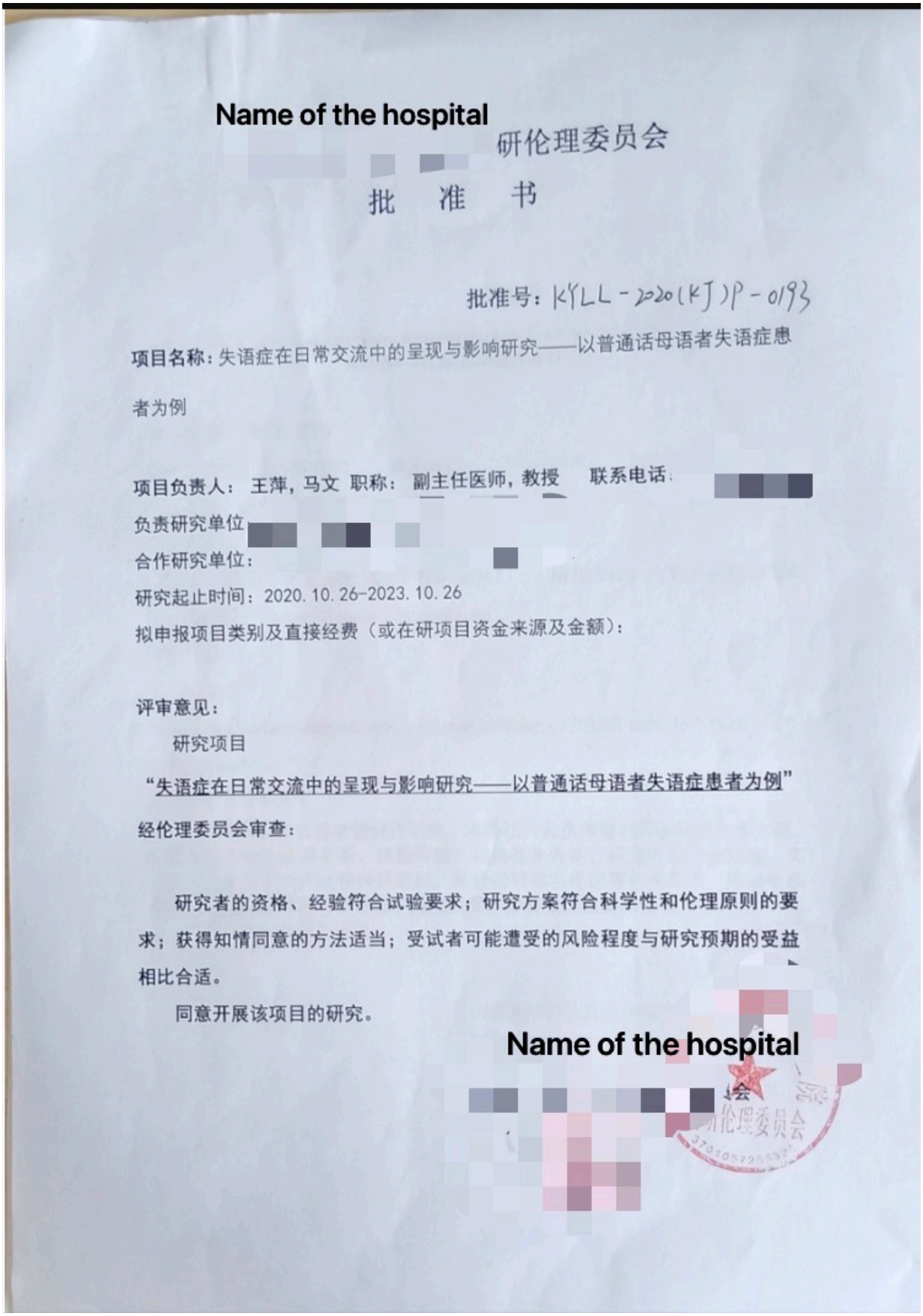
Another important avenue for future research is to explore how Mandarin, as a distinctive language, may influence the conversational patterns of PWA. To fully understand this impact, two key aspects should be considered: (1) features that Mandarin has which are not present in many other languages and may shape the aphasic conversation, and (2) features that Mandarin lacks, which are common in other languages and may also affect how aphasia manifests in conversation. First, Mandarin has unique linguistic characteristics that could influence how PWA engages in conversation. For instance, Mandarin's tonal system—where pitch

variations change word meaning—and its use of common word formations, such as noun-noun combinations (‘父母’ *fùmǔ* meaning ‘parents’) and verb-verb structures (‘喜欢’ *xǐhuān* meaning ‘like’), are distinctive. In addition, sentence structures like subject-verb-object (SVO) and sentence-final particles that indicate questions contribute to how meaning is conveyed. These features, along with Mandarin’s reliance on classifiers, could impact how PWA formulate turns (Beeke et al. 2003a,b; Wilkinson et al., 2003) or search for words during conversation (Goodwin, 1995; Helasvuo et al.,2004; Wilkinson, 2007). Understanding how these language-specific elements affect aphasic speech could offer insights into how PWA navigate communication challenges in Mandarin compared to other languages. Second, Mandarin lacks certain linguistic features that are prominent in many other languages, such as tense markers and inflectional changes for gender, number, and case. In languages with critical features, PWA often produces ‘telegraphic speech’, omitting grammatical markers due to their impairment (Kolk, 1987). However, because Mandarin is topic-prominent does not require tense or inflectional markers and allows for verb omission, ‘telegraphic speech’ may be more acceptable or less noticeable in Mandarin conversation (Li & Thompson, 1989). This absence of tense and inflectional changes may result in PWA presenting differently in Mandarin, as their speech may align more closely with grammatically acceptable patterns, even when key elements are omitted. Future research could further explore how these distinctive features of Mandarin shape aphasic conversations, compared to other languages where tense and inflection play a more significant role. This will deepen our understanding of both universal and language-specific aspects of aphasia.

Appendix 1 Transcription symbols

Symbol	Description
(.)	A micropause - a pause of no significant length.
(0.7)	A timed pause - long enough to indicate a time.
[ ]	Square brackets show where speech overlaps.
> <	Arrows showing that the pace of speech has quickened.
< >	Arrows showing that the pace of the speech has slowed down.
( )	Unclear section.
(( ))	An entry requiring comment but without a symbol to explain it.
Underlining	Denotes a raise in volume or emphasis.
↑	Rise in intonation
↓	Drop in intonation
→	Entered by the analyst to show a sentence of particular interest.
CAPITALS	Louder or shouted words.
(h)	Laughter in the conversation/speech.
=	Will be at the end of one sentence and the start of the next. It indicates that there was no pause between them.
:	indicate a stretched sound.
/kæt/	transcribe paraphasias and jargon between slashes, using an IPA font.
* *	Descriptions of embodied actions are delimited between
+ +	two identical symbols (one symbol per participant and per type of action)
Δ Δ	that are synchronized with correspondent stretches of talk or time indications.
*--->	The action described continues across subsequent lines
---->*	until the same symbol is reached.
.....	Action's preparation.
----	Action's apex is reached and maintained.
,,,,,	Action's retraction.
ric	Participant doing the embodied action is identified in small caps in the margin.
fig	The exact moment at which a screen shot has been taken
#	is indicated with a sign (#) showing its position within the turn/a time measure.
>>	The action described begins before the excerpt's beginning.
--->>	The action described continues after the excerpt's end.

Appendix 2 Ethical approval letter from China



Name of the hospital 研伦理委员会

批 准 书

批准号：KYLL-2020(KJ)P-0193

项目名称：失语症在日常交流中的呈现与影响研究——以普通话母语者失语症患者为例

项目负责人： 王萍，马文 职称： 副主任医师，教授 联系电话：

负责研究单位

合作研究单位：

研究起止时间：2020. 10. 26-2023. 10. 26

拟申报项目类别及直接经费（或在研项目资金来源及金额）：

评审意见：

研究项目

“失语症在日常交流中的呈现与影响研究——以普通话母语者失语症患者为例”

经伦理委员会审查：

研究者的资格、经验符合试验要求；研究方案符合科学性和伦理原则的要求；获得知情同意的方法适当；受试者可能遭受的风险程度与研究预期的受益相比合适。

同意开展该项目的研究。

Name of the hospital 会

Appendix 3 Ethical approval letter

Downloaded: 18/07/2022
Approved: 29/07/2021

Xinxin Yang
Registration number: 200223906
Human Communication Sciences
Programme: No

Dear Xinxin

PROJECT TITLE: Investigating how aphasia in Mandarin speakers presents within, and impacts upon everyday communication
APPLICATION: Reference Number 037428

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 29/07/2021 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 037428 (form submission date: 28/07/2021); (expected project end date: 26/04/2024).
- Participant information sheet 1085824 version 3 (29/06/2021).
- Participant information sheet 1085823 version 4 (28/07/2021).
- Participant information sheet 1085822 version 4 (28/07/2021).
- Participant information sheet 1084866 version 4 (28/07/2021).
- Participant information sheet 1084864 version 4 (28/07/2021).
- Participant information sheet 1085820 version 2 (06/03/2021).
- Participant information sheet 1085821 version 4 (28/07/2021).
- Participant information sheet 1084865 version 4 (28/07/2021).
- Participant consent form 1085831 version 2 (06/03/2021).
- Participant consent form 1085829 version 2 (06/03/2021).
- Participant consent form 1085828 version 4 (28/07/2021).
- Participant consent form 1084863 version 2 (06/03/2021).
- Participant consent form 1084862 version 4 (28/07/2021).
- Participant consent form 1084861 version 4 (28/07/2021).
- Participant consent form 1085827 version 2 (06/03/2021).
- Participant consent form 1085826 version 4 (28/07/2021).
- Participant consent form 1085825 version 4 (28/07/2021).
- Participant consent form 1084860 version 4 (28/07/2021).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

Kate Chadwick
Ethics Administrator
Health Sciences School

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy: https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/approval-procedure
- The project must abide by the University's Good Research & Innovation Practices Policy: https://www.sheffield.ac.uk/polopoly_fs/1.671066!/file/GRIPPolicy.pdf
- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
- The researcher must comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

Appendix 4 Information sheet for healthcare professionals

Participant Information Sheet (for Healthcare Professionals)

1. Research Project Title:

Investigating how aphasia in Mandarin speakers presents within, and impacts upon, everyday communication

2. Introduction

This research is conducted in fulfilment of the requirements for the degree of Doctor of Philosophy at The University of Sheffield. If you have any questions, please contact xyang105@sheffield.ac.uk .

3. Invitation paragraph

You are being invited to take part in a research project. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

4. What is the project's purpose?

This study aims to find out what is distinctive about aphasic interaction and how people with aphasia and their interaction partners talk and communicate within everyday interaction.

5. Why have I been chosen?

You have been chosen to participate as you have been providing therapy and care to the targeted patients with aphasia in The Second Hospital of Shandong University. By participating, you will help us build up the amount of data available for analysis.

6. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep (and be asked to sign a consent form) and you can still stop the video recording or withdraw at any time without any negative consequences. You do not have to give a reason. If you wish to withdraw from the research, please contact xyang105@sheffield.ac.uk .

*Please note that whilst you can withdraw from any on-going or future data collection, your data cannot be removed from the study beyond this point.

Please note that that by choosing to participate in this research, this will not create a legally binding agreement, nor is it intended to create an employment relationship between you and the University of Sheffield.

7. What will happen to me if I take part? What do I have to do?

Firstly, you will be given this information sheet to keep and be asked to sign a consent form.

Secondly, you will be asked to join a video recording while carrying out medical treatment, doing routine wards inspection or conducting tests for the patients. The time length is up to your arrangements, which is probably 20-30 minutes in total.

You have to do nothing special but to interact as usual with the aphasic patients with a camera presenting.

8. How the recorded media used?

The video recordings of your activities made during this research will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

9. What are the possible disadvantages and risks of taking part?

The research will run alongside your routine clinical work at the hospital. There is thus no potential harm to you at all.

10. What are the possible benefits of taking part?

Whilst there are no immediate benefits for participating in the project, it is hoped that the data collected with your participation will be beneficial for future clinical interventions for people with aphasia in China.

11. Will my taking part in this project be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential and will only be accessible to members of the research team. You will not be able to be identified in any reports or publications. If you agree to us sharing the information you provide with other researchers (e.g. on conferences) or students (e.g. for teaching purposes), your personal details will not be included.

Participants can choose from one of the three options in the consent form to decide who will have the rights and how they want their data to be viewed. The three options are “I only give permission for the PhD. student and the supervisors to view these data”; “I give permission for the PhD. student, the supervisors, other researchers (e.g. on conferences), and students (e.g. for teaching purposes) to view the data only if my face is hidden via pixilation.”; and “I give permission for the data to be viewed by the PhD. students, the supervisors, other researchers (e.g. on conferences), and students (e.g. for teaching purposes) without any pixilation”.

12. What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that ‘processing is necessary for the performance of a task carried out in the public interest’ (Article 6(1)(e)). Further information can be found in the University’s Privacy Notice *https://www.sheffield.ac.uk/govern/data-protection/privacy/general.’*

13. What will happen to the data collected, and the results of the research project?

During the research, both the video recordings and paper-based data collected will be stored securely in google drive for research purposes with limited accessibility only to the research team.

If you allow other researchers (e.g. on conferences) or students (e.g. for teaching purpose) to get access to your data, they can only do so in an anonymized way.

Participants can decide how long they would like the researcher to keep their identifiable data after the project has ended through choosing one of the three options in the consent form. The three options are "I give you permission to record my conversations but I want the recordings to be destroyed at the end of your PhD. (in 2023)"; "I give you permission to record me but I want the video recordings to be destroyed 5 years after the end of your PhD. (in 2028)"; and "I am happy for you to record me and I give you permission to keep the video recordings indefinitely".

The results of the research will be published in an anonymized way. We will share the results with you if you are interested in them.

14. Who is organising and funding the research?

The China Scholarship Council is funding the research.

15. Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University of Sheffield is responsible for looking after your information and using it properly.

16. Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the School of Health Sciences.

17. What if something goes wrong and I wish to complain about the research?

If there is something goes wrong and you wish to raise a complaint, please contact Prof. Ray Wilkinson through the following email address: ray.wilkinson@sheffield.ac.uk. If you are not satisfied with the complaint results, please further contact the Head of Division Dr Judy Clegg through the email address: j.clegg@sheffield.ac.uk .If your complaint relates to how the participants' personal data has been handled, information about how to raise a complaint can be found in the University's Privacy Notice

https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

18. Contact for further information

Xinxin Yang, Division of Human Communication Science, University of Sheffield, email: xyang105@sheffield.ac.uk. Tel: +86(0) +15853157031

Prof. Ray Wilkinson, Division of Human Communication Sciences, University of Sheffield, email: ray.wikinson@sheffield.ac.uk. Tel: +44(0)114 2222449

Prof. Wen Ma, School of Foreign Language, Shandong University, email: mawen@sdu.edu.cn. Tel: +86(0) +15063376359

You will be given a copy of the information sheet and a signed consent form to keep.

Thank you for taking part in this research.

参与须知 (医务工作者版)

1. 研究项目：

失语症在日常交流中的呈现与影响研究——以普通话母语者失语症患者为例

2. 项目介绍：

该项目旨在完成谢菲尔德大学人类交流学系博士学位要求,同时系山东大学临床语言学中心与山东大学第二医院合作子项目。受国家留学基金委支持。

如有疑问，请联系：xyang105@sheffield.ac.uk

3. 参与邀请：

您将被邀请参加该研究项目。在决定是否参加之前，您可通过以下信息了解该项目的研究目的及研究内容。请仔细阅读以下内容，如有需要，请联系研究团队。感谢您的阅读。

4. 研究目的：

本研究旨在发现失语症患者会话特点，探讨失语症患者在日常生活中如何交流。

5. 您为什么可参与该研究项目？

因为您本人为山东大学第二医院医务工作者，并为该院失语症病人提供了治疗或看护服务。通过参与该项目，您可以帮助为该项目提供语料。

6. 您必须参加吗？

您可自愿选择是否参加该项目，如果您确定参加，您将保留此参与须知书并需签署一份知情同意书。如果中途想退出该研究，您可以随时中止视频录制，中止参与不会对您产生任何影响。若决定中止参与该项目，请联系 xyang105@sheffield.ac.uk

注意： ① 虽然您可以随时中止参与该研究项目，但在此之前收集的语料将无法撤销。

② 参与本研究项目并不代表您与谢菲尔德大学有任何雇佣关系，也不代表您与谢菲尔德大学签署任何法律协议。

7. 参加本研究对您有何影响？您需要做什么？

您需要保留该参与须知书并需签署知情同意书。

您将会在正常问诊、查房或测试患者时被录像，每位患者总录像时长约 20-30 分钟。

您在录像过程中仅需像平时一样与患者正常交流即可，不需有任何特殊行为。

8. 录像语料用于何种途径？

该研究项目中所有录像均仅用于学术交流与教学。没有您的书面允许，所有录像都不会用于其他目的。任何与该项目无关人员都不得查看该录像。

9. 参与该研究项目是否有风险？

该录像在您正常工作环境下录制，不会对您产生任何风险。

10. 参与该项目研究是否有利益？

尽管参与该项目没有直接利益，但您的参与将对中国失语症临床干预研究具有推动作用。

11. 参与该项目是否保密？

整个研究过程中收集到的所有关于您的信息都将保密，您的个人信息不会出现在在任何的文章或报告中，若研究成果发表，您的个人信息将在文中被剔除。您的所有信息都将存储于加密网盘中，仅限研究团队成员查阅。

在知情同意书中，您将被给予以下三个选项，您可从中选取任一选项，决定谁可以以何种方式看到您的语料。这三个选项分别为：

我允许该博士生及博士生导师查看该语料。

我允许该博士生、博士生导师、其他研究人员（如在学术会议场景中）以及学生（如在课堂场景中）查看该语料。

我允许该博士生、博士生导师、其他研究人员（如在学术会议场景中）以及学生（如在课堂场景中）查看该语料，但前提是我的面部予以马赛克遮挡。

12. 处理您语料的法律基础是什么？

语料保护法规定研究团队将依据以下法律条例“处理该语料的必要性是由其产生的公共利益所决定的”（法案 6（1）（e））处理您的语料。更多信息可参考谢菲尔德大学隐私公告：*https://www.sheffield.ac.uk/govern/data-protection/privacy/general.’*

13. 收集完成的语料如何存储？研究结果如何告知？

在整个研究过程中，所有的录像及纸质语料都将加密储存于谷歌云盘中，且仅限研究团队成员查阅。如果您允许其他研究人员（如在学术会议场景中）或学生（如在课堂场景中）查看语料，您的个人信息将被剔除，并匿名处理。

在知情同意书中，您将被给予以下三个选项，您可选取任一选项决定研究结束后语料的储存年限。这三个选项分别为：

我允许你录像，但我希望录像能在你博士毕业后（2023 年）被销毁。

我允许你录像，但我希望录像能在你博士毕业的五年后（2028 年）被销毁。

我允许你录像，并希望你能一直使用该录像。

若研究结果发表，您的信息将被匿名处理。如果您感兴趣，我们将与您分享研究结果。

14. 该研究项目是否受相关机构支持？

该研究项目由国家留学基金委提供资助支持。

15. 语料处理由哪个机构监督？

谢菲尔德大学为该项目的语料维护方，也就是说谢菲尔德大学负责监督您语料的安全及正确使用。

16. 该项目是否经过伦理审核？

山东大学第二医院伦理审查委员会和谢菲尔德大学伦理审查委员会已分别完成对该项目的伦理审核。

17. 若参与过程不愉快，如何申诉？

若参与过程中有疑问或投诉，请联系 ray.wilkinson@sheffield.ac.uk 。若对处理结果不满意，可继续联系人类交流学系院长 j.clegg@sheffield.ac.uk。若仍对语料处理结果不满，可参照谢菲尔德大学隐私公告 https://www.sheffield.ac.uk/govern/data-protection/privacy/general 提起申诉。

18. 未尽事宜，请联系

杨信信，谢菲尔德大学人类交流学系博士，邮箱：xyang105@sheffield.ac.uk. 电话：+86(0) +15853157031

马文教授，山东大学外国语学院临床语言学，邮箱：mawen@sdu.edu.cn. 电话：+86(0) +15063376359

Ray Wilkinson 教授，谢菲尔德大学人类交流学系教授，邮箱：ray.wikinson@sheffield.ac.uk. 电话：+44(0)114 2222449

非常感谢您的参与，请您保存本参与须知及知情同意书。

Appendix 5 Consent form for healthcare professionals

Consent Form for Healthcare Professionals

Please tick the appropriate boxes	**Yes**	**No**
Taking Part in the Project		
I have read and understood the project information sheet dated 20/08/2021 or the project has been fully explained to me. (If you will answer No to this question please do not proceed with this consent form until you are fully aware of what your participation in the project will mean.)	☐	☐
I have been given the opportunity to ask questions about the project.	☐	☐
I agree to take part in the project. I understand that taking part in the project will include being video-recorded .	☐	☐
I understand that by choosing to participate as a volunteer in this research, this does not create a legally binding agreement nor is it intended to create an employment relationship with the University of Sheffield.	☐	☐
I understand that my taking part is voluntary and that I can withdraw from the study at any time; I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.	☐	☐
How my information will be used during and after the project		
I understand my personal details will not be revealed to people outside the project.	☐	☐
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.	☐	☐
I allow Either 1. the PhD. student and the supervisors to see these data. ☐ Or 2. the PhD. student, the supervisors, other researchers (e.g. on conferences), and students (for teaching purposes) to view the data only if my face is hidden via pixilation. ☐ Or 3. the PhD. students, the supervisors, other researchers (e.g. on conferences), and students (for teaching purposes) to view the data without any pixilation. ☐		
I allow you to record me but I want the recordings to be Either 1. destroyed in 2023 (at the end of your PhD). ☐ Or 2. destroyed in 2028 (5 years after the end of your PhD). ☐ Or 3. kept indefinitely for future research. ☐		
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	☐	☐

Name of participant [printed] Signature Date

Name of Researcher [printed] Signature Date

Project contact details for further information:

Xinxin Yang, PhD. Student, Division of Human Communication Science, University of Sheffield, email: xyang105@sheffield.ac.uk. Tel: +86(0) +15853157031

Ray Wilkinson, Professor, Division of Human Communication Sciences, University of Sheffield, email: ray.wikinson@sheffield.ac.uk. Tel: +44(0)114 2222449

Judy Clegg, Head of Division, Division of Human Communication Science, University of Sheffield, email: j.clegg@sheffield.ac.uk.

知情同意书（医务工作者版）

请在合适的方框中打“✓”	是	否
关于项目参与		
我已阅读并完全理解该项目的参与须知。（如果您此题选择“否”，请先暂停填写该表格，等完全清楚该项目参与须知后方可继续完成本表格。）	☐	☐
我对该项目的疑问得到了充分解答。	☐	☐
我同意参与该研究项目，并知道参与该项目将会被录像。	☐	☐
我明白自愿参与本研究项目并不代表我与谢菲尔德大学签署任何法律协议，也不代表我与谢菲尔德大学有任何雇佣关系。	☐	☐
我自愿参与本研究项目，我可以随时中止参与本研究项目。中止参与本研究项目不会对我产生任何影响。	☐	☐
关于语料处理		
我理解我的个人信息不会泄露给任何与本项目无关人员。	☐	☐
我明白并同意我的言语将会在文献、报告、网页或其他研究成果中被使用。我明白我的姓名不会出现在以上研究成果中。	☐	☐
我同意：（仅能勾选一个选项） 1. 该博士研究生及研究生导师查看该语料。 ☐ 2. 该博士研究生、研究生导师、其他研究人员以及学生查看该语料。☐ 3. 该博士研究生、研究生导师、其他研究人员（在学术会议分享）以及学生（用于教学）查看该语料，除非我的面部被马赛克遮挡。 ☐		
我允许你录像，但录像须：（仅能勾选一个选项） 1. 于 2023 年（博士毕业时）被销毁。 ☐ 2. 于 2028 年（博士毕业 5 年后）被销毁 。☐ 3. 永久保存，用于研究。 ☐		
关于合法使用语料		
我同意授权谢菲尔德大学保管该语料。	☐	☐

医生姓名：　　签字：　　日期：

研究员姓名：　　签字：　　日期：

项目负责人联系方式：
杨信信，英国谢菲尔德大学人类交流学系博士，邮箱： xyang105@sheffield.ac.uk.电话：+86(0) +15853157031

Appendix 6 Information sheet for PWA

Participant Information Sheet (for peoplw with aphasia)

1. What is the research:

It's about how
the aphasic patients
communicate with others in daily life.

2. Why are we doing the research?

We want to know
more about
your communication ability.

3. Why me?

You have been diagnosed with aphasia.

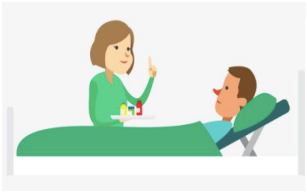
And you are having your treatment in The Second Hospital of Shandong University.

4. Do I have to take part?

You do not have to. You can say no.

If you change your mind, you can stop the video recording at any time.
This will not affect your normal therapy.

5. What do I have to do?

     	You will be video-recorded when talking with the doctor. You will be video-recorded when talking with your family member. You are also expected to answer some questions.

6. What might be bad of taking part?

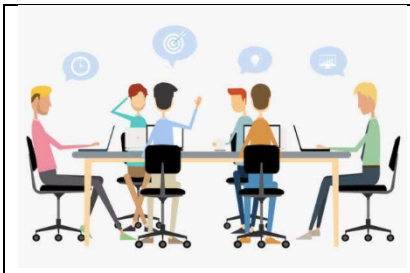
	You may take time to answer some questions.

7. What might be good of taking part?

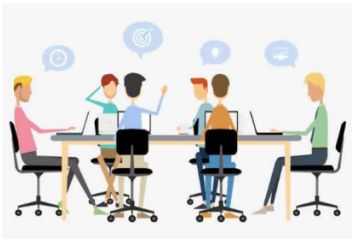
	You may improve recovery for other people after stroke.

8. Will others see my information?

	Only the researchers can see your information. We will take out your name and hide your face. You can tick one from the three choices on the consent form to decide who else will see the video recordings. The choices are:

 	I only allow the PhD. student and the supervisors to see these data. I allow the PhD. student, the supervisors, other researchers, and students to view the data in this way:  . I allow the data to be viewed by the PhD. students, the supervisors, other researchers, and students in this way:  .

9. What will happen to the data collected, and the results of the research project?

   	The data collected from you will be stored securely. You can tick one from the three choices on the consent form to decide how long you want your data to be stored. The choices are: I allow you to record me but I want the recordings to be destroyed in 2023 (at the end of your PhD). I allow you to record me but I want the recordings to be destroyed in 2028 (5 years after the end of your PhD.) I allow you to record me but I want the recordings to be kept forever for future research. We will share the results with other researchers at conferences. The results will not use your name.

10. Who is organising and funding the research?

	The China Scholarship Council is funding the research.

11. Who is the Data Controller?

	The University of Sheffield

12. Who has ethically reviewed the project?

	The University of Sheffield's Ethics Review Procedure

13. What if something goes wrong?

	If there is something goes wrong, you can talk to: Prof. Ray Wilkinson ray.wilkinson@sheffield.ac.uk. in Division of Human Communication Science.

You will be given a copy of the information sheet and a signed consent form to keep.

Thank you for taking part in this research.

参与须知（失语症患者友好版）

1. 这是什么研究？

	本研究想知道您 在日常生活中 怎么和别人交流。

2. 为什么做这个研究？

	研究人员 想了解 您的沟通能力。

3. 为什么研究您？

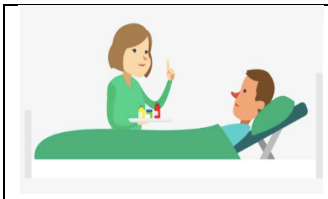
 	因为您有失语症状， 并且 正在医院接受治疗。

4. 您必须参加吗？

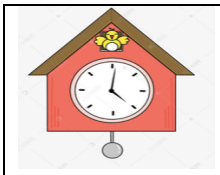
 	您不用必须参加。 如果您参加，会对研究有帮助； 如果您不参加，您可以随时退出， 不会对您的正常治疗产生任何影响。

5. 如果参加，您需要做什么？

	您会在和医生说话的时候被录像。

     	您会在和家人朋友说话的时候被录像。 您需要做一些测试题。

6. **参与研究有什么危害？**

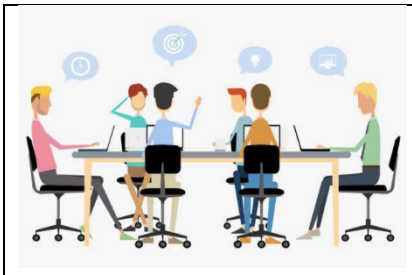
	您可能需要 花时间 回答一些问题。

7. **参与研究有什么好处？**

	您可能会 帮助 其他失语症患者康复。

8. **别人会看到您的信息吗**

	• 只有研究员能看到您的信息。研究员会把您的名字擦掉，也会挡住您的面部。 • 在知情同意书中，您可从下面选取任一选项，决定谁可以看到您的语料，也能决定他们怎样看您的语料。 • 这三个选项分别为： 我只允许该博士生及博士生导师查看该语料。

 	我允许该博士生、博士生导师、其他研究人员以及学生查看该语料  。 我允许该博士生、博士生导师、其他研究人员以及学生查看该语料，但我的面部需要遮挡  。

9. 收集的语料放在哪里？

 	• 收集的您所有的录像及纸质语料都会加密存储。 • 在知情同意书中，您可选取任一选项决定研究结束后语料的储存年限。 • 这三个选项分别为： 我允许你录像，但我希望录像能在你博士毕业后（2023 年）被销毁。 我允许你录像，但我希望录像能在你博士毕业的五年后（2028 年）被销毁。 我允许你录像，并希望你能一直使用该录像。 • 研究发表也不会使用您的真实姓名。

10. 国家支持这项研究吗？

	国家留学基金委资助支持该研究。

11. **哪个部门管理您的语料？**

	英国谢菲尔德大学。

12. **这个研究需要哪个部门审核？**

	英国谢菲尔德大学伦理学会已经完成对这个研究的审核。

13. **有问题和谁联系？**

	参与过程中有任何问题，请联系人类交流学系博士杨信信 xyang105@sheffield.ac.uk.

非常感谢您的参与，请您保存本参与须知及知情同意书。

Appendix 7 Information Sheet for Significant Others

Participant Information Sheet (for significant others)

1. Research Project Title:

Investigating how aphasia in Mandarin speakers presents within, and impacts upon, everyday communication

2. Introduction

This research is conducted in fulfilment of the requirements for the degree of Doctor of Philosophy at The University of Sheffield. If you have any questions, please contact xyang105@sheffield.ac.uk .

3. Invitation paragraph

You are being invited to take part in a research project. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

4. What is the project's purpose?

This study aims to find out what is distinctive about aphasic interaction and how people with aphasia and their interaction partners talk and communicate within everyday interaction.

5. Why have I been chosen?

You have been chosen because your family member or significant other has been diagnosed with aphasia. Your role in supporting and caring the person with aphasia is important.

6. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep (and be asked to sign a consent form) and you can still stop the video recording or withdraw at any time without any negative consequences. You do not have to give a reason. If you wish to withdraw from the research, please contact xyang105@sheffield.ac.uk .

*Please note that whilst you can withdraw from any on-going or future data collection, your data cannot be removed from the study beyond this point.

Please note that that by choosing to participate in this research, this will not create a legally binding agreement, nor is it intended to create an employment relationship between you and the University of Sheffield.

7. What will happen to me if I take part? What do I have to do?

Firstly, you will be given this information sheet to keep and be asked to sign a consent form.

Secondly, you will be asked to join a video recording while paying a visit to the patients in the hospital or chatting with the patients at home. The time length is around 15 minutes for each time, with 4 times in total.

You have to do nothing special but to interact as usual with the aphasic patients with a camera presenting.

8. How the recorded media used?

The video recordings of your activities made during this research will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

9. What are the possible disadvantages and risks of taking part?

By taking part in this research, be it in the hospital or at home, you only need to do your routine daily communication with the patients. There is thus no potential harm to you at all.

10. What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that the data collected with your participation in this research will be beneficial for future clinical interventions for people with aphasia in China.

11. Will my taking part in this project be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential and will only be accessible to members of the research team. You will not be able to be identified in any reports or publications. If you agree to us sharing the information you provide with other researchers (e.g. on conferences) or students (e.g. for teaching purposes), your personal details will not be included.

Participants can choose from one of the three options in the consent form to decide who will have the rights and how they want their data to be viewed. The three options are "I only give permission for the PhD. student and the supervisors to view these data"; "I give permission for the PhD. student, the supervisors, other researchers (e.g. on conferences), and students (e.g. for teaching purposes) to view the data only if my face is hidden via pixilation."; and "I give permission for the data to be viewed by the PhD. students, the supervisors, other researchers (e.g. on conferences), and students (e.g. for teaching purposes) without any pixilation".

12. What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice *https://www.sheffield.ac.uk/govern/data-protection/privacy/general.'*

13. What will happen to the data collected, and the results of the research project?

During the research, both the video recordings and paper-based data collected will be stored securely in google drive for research purposes with limited accessibility only to the research team.

If you allow other researchers (e.g. on conferences) or students (e.g. for teaching purpose) to get access to your data, they can only do so in an anonymized way.

Participants can decide how long they would like the researcher to keep their identifiable data after the project has ended through choosing one of the three options in the consent form. The three options are "I give you permission to record my conversations but I want the recordings to be destroyed at the end of your PhD. (in 2023)"; "I give you permission to record me but I want the video recordings to be destroyed 5 years after the end of your PhD. (in 2028)"; and "I am happy for you to record me and I give you permission to keep the video recordings indefinitely".

The results of the research will be published in an anonymized way. We will share the results with you if you are interested in them.

14. Who is organising and funding the research?

The China Scholarship Council is funding the research.

15. Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University of Sheffield is responsible for looking after your information and using it properly.

16. Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the School of Health Sciences.

17. What if something goes wrong and I wish to complain about the research?

If there is something goes wrong and you wish to raise a complaint, please contact Prof. Ray Wilkinson through the following email address: ray.wilkinson@sheffield.ac.uk. If you are not satisfied with the complaint results, please further contact the Head of Division Dr Judy Clegg through the email address: j.clegg@sheffield.ac.uk .If your complaint relates to how the participants' personal data has been handled, information about how to raise a complaint can be found in the University's Privacy Notice

https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

18. Contact for further information

Xinxin Yang, Division of Human Communication Science, University of Sheffield, email: xyang105@sheffield.ac.uk. Tel: +86(0) +15853157031

Prof. Ray Wilkinson, Division of Human Communication Sciences, University of Sheffield, email: ray.wikinson@sheffield.ac.uk. Tel: +44(0)114 2222449

Prof. Wen Ma, School of Foreign Language, Shandong University, email: mawen@sdu.edu.cn. Tel: +86(0) +15063376359

参与须知（家属版）

1. **研究项目：**

失语症在日常交流中的呈现与影响研究——以普通话母语者失语症患者为例

2. **项目介绍：**

该项目旨在完成谢菲尔德大学人类交流学系博士学位要求,同时系山东大学临床语言学中心与山东大学第二医院合作子项目。受国家留学基金委支持。

如有疑问，请联系：xyang105@sheffield.ac.uk

3. **参与邀请：**

您将被邀请参加该研究项目。在决定是否参加之前，您可通过以下信息了解该项目的研究目的及研究内容。请仔细阅读以下内容，如有需要，请联系研究团队。感谢您的阅读。

4. **项目研究目的：**

本研究旨在发现失语症患者会话特点，探讨失语症患者在日常生活中如何交流。

5. **您为什么可参与该研究项目？**

因为您的家人或朋友为失语症患者，您为该患者提供了大量的支持与帮助。

6. **您必须参加吗？**

您可自愿选择是否参加该项目，如果您确定参加，您将保留此参与须知书并需签署一份知情同意书。如果中途想退出该研究，您可以随时中止视频录制，中止参与不会对您产生任何影响。若决定中止参与该项目，请联系 xyang105@sheffield.ac.uk

注意：① 虽然您可以随时中止参与该研究项目，但在此之前收集的语料将无法撤销。

② 参与本研究项目并不代表您与谢菲尔德大学有任何雇佣关系，也不代表您与谢菲尔德大学签署任何法律协议。

7. **参加本研究对您有何影响？您需要做什么？**

您需要保留该参与须知书并需签署知情同意书。

您将会在与患者交谈时被录像，录像的场景可以在家中也可以在医院，总录像时长约 60 分钟，可分若干次进行。

您在录像过程中仅需像平时一样与患者正常交流即可，不需有任何特殊行为。

8. **录像语料用于何种途径？**

该研究项目中所有录像均仅用于学术交流与教学。没有您的书面允许，所有录像都不会用于其他目的。任何与该项目无关人员都不得查看该录像。

9. **参与该研究项目是否有风险？**

该录像在您正常生活环境或就医场景下录制，不会对您产生任何风险。

10. **参与该项目研究是否有利益？**

尽管参与该项目没有直接利益，但您的参与将对中国失语症临床干预研究具有推动作用。

11. **参与该项目是否保密？**

整个研究过程中收集到的所有关于您的信息都将保密，您的个人信息不会出现在在任何的文章或报告中，若研究成果发表，您的个人信息将在文中被剔除。您的所有信息都将存储于加密网盘中，仅限研究团队成员查阅。

在知情同意书中，您将被给予以下三个选项，您可从中选取任一选项，决定谁可以以何种方式看到您的语料。这三个选项分别为：

我允许该博士生及博士生导师查看该语料。

我允许该博士生、博士生导师、其他研究人员（如在学术会议场景中）以及学生（如在课堂场景中）查看该语料。

我允许该博士生、博士生导师、其他研究人员（如在学术会议场景中）以及学生（如在课堂场景中）查看该语料，但前提是我的面部予以马赛克遮挡。

12. **处理您语料的法律基础是什么？**

语料保护法规定研究团队将依据以下法律条例“处理该语料的必要性是由其产生的公共利益所决定的”（法案 6（1）（e））处理您的语料。更多信息可参考谢菲尔德大学隐私公告：*https://www.sheffield.ac.uk/govern/data-protection/privacy/general*.’

13. **收集完成的语料如何存储？研究结果如何告知？**

在整个研究过程中，所有的录像及纸质语料都将加密储存于谷歌云盘中，且仅限研究团队成员查阅。如果您允许其他研究人员（如在学术会议场景中）或学生（如在课堂场景中）查看语料，您的个人信息将被剔除，并匿名处理。

在知情同意书中，您将被给予以下三个选项，您可选取任一选项决定研究结束后语料的储存年限。这三个选项分别为：

我允许你录像，但我希望录像能在你博士毕业后（2023 年）被销毁。

我允许你录像，但我希望录像能在你博士毕业的五年后（2028 年）被销毁。

我允许你录像，并希望你能一直使用该录像。

若研究结果发表，您的信息将被匿名处理。如果您感兴趣，我们将与您分享研究结果。

14. 该研究项目是否受相关机构支持？

该研究项目由国家留学基金委提供资助支持。

15. 语料处理由哪个机构监督？

谢菲尔德大学为该项目的语料维护方，也就是说谢菲尔德大学负责监督您语料的安全及正确使用。

16. 该项目是否经过伦理审核？

山东大学第二医院伦理审查委员会和谢菲尔德大学伦理审查委员会已分别完成对该项目的伦理审核。

17. 若参与过程不愉快，如何申诉？

若参与过程中有疑问或投诉，请联系 ray.wilkinson@sheffield.ac.uk 。若对处理结果不满意，可继续联系 j.clegg@sheffield.ac.uk。若仍对语料处理结果不满，可参照谢菲尔德大学隐私公告 https://www.sheffield.ac.uk/govern/data-protection/privacy/general 提起申诉。

18. 未尽事宜，请联系

杨信信，谢菲尔德大学人类交流学系博士，邮箱：xyang105@sheffield.ac.uk. 电话：+86(0)+15853157031

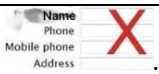
马文教授，山东大学外国语学院临床语言学，邮箱：mawen@sdu.edu.cn. 电话：+86(0)+15063376359

Ray Wilkinson 教授，谢菲尔德大学人类交流学系教授，邮箱：ray.wikinson@sheffield.ac.uk. 电话：+44(0)114 2222449

非常感谢您的参与，请您保存本参与须知及知情同意书。

Appendix 8 Consent Form for PWA

Consent Form (for people with aphasia)

Taking Part in the Project
I have read and understood  the information sheet dated 20/07/2021.
 
I have time to think over  and ask questions  about the research.
 
I agree to take part in the project.
 
I will be video-recorded  .
 
I understand that my taking part is voluntary  .
 
I understand that I can stop at any time. I do not have to give any reasons.
 
How my information will be used during and after the project
I understand my name and personal details will never be used  .
 
I understand and agree that my data will be only viewed by the research team  .
 
I allow Either 1. the PhD. student and the supervisors to see these data. ☐ Or 2. the PhD. student, the supervisors, other researchers, and students to view the data in this way:  . ☐

Or 3. the data to be viewed by the PhD. students, the supervisors, other researchers, and students in this way:  ☐
I allow you to record me but I want the recordings to be: Either 1. destroyed in 2023 (at the end of your PhD). ☐ Or 2. destroyed in 2028 (5 years after the end of your PhD.) ☐ Or 3. kept forever for future research. ☐
So that the information you provide can be used legally by the researchers
I agree to assign the copyright to The University of Sheffield.

	
Signature of the participants:	Date:
Signature of the researcher:	Date:

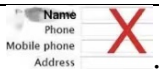
Project contact details for further information:

Xinxin Yang, Division of Human Communication Science, University of Sheffield, email: xyang105@sheffield.ac.uk. Tel: +86(0) +15853157031

Prof. Ray Wilkinson, Division of Human Communication Sciences, University of Sheffield, email: ray.wikinson@sheffield.ac.uk. Tel: +44(0)114 2222449

Dr Judy Clegg, Division of Human Communication Science, University of Sheffield, email: j.clegg@sheffield.ac.uk.

知情同意书（失语症友好版）

请在合适的方框中打“✓”
关于项目参与
我明白  参与须知里的内容。
 
我对项目的疑问  得到了充分解答  。
 
我同意参与该研究项目。
 
我知道我会被录像  。
 
我明白我的参与是自愿的  。
 
我知道我可以随时停止参与，不需要解释。
 
关于语料处理
我知道这个研究不会使用我的个人信息。  .
 
我知道只有研究团队可以看到我的信息  。
 
我允许：（仅能勾选一个选项） 1. 该博士研究生及研究生导师查看该语料。 2. 该博士研究生、研究生导师、其他研究人员以及学生查看该语料  。

3. 该博士研究生、研究生导师、其他研究人员（在学术会议分享）以及学生 （用于教学）查看该语料，除非以这种方式：  。
我允许你录像，但录像必须：（仅能勾选一个选项） 1. 于 2023 年（博士毕业时）被毁掉。☐ 2. 于 2028 年（博士毕业 5 年后）被毁掉。☐ 3. 永久保存，用于研究。☐
关于合法使用语料
我同意授权谢菲尔德大学保管该语料。

	
患者签名：	日期:
研究员签名:	日期:

项目负责人联系方式：

杨信信，英国谢菲尔德大学人类交流学系博士，邮箱： xyang105@sheffield.ac.uk. 电话：+86(0) +15853157031

Ray Wilkinson，英国谢菲尔德大学人类交流学系教授，邮箱： ray.wikinson@sheffield.ac.uk. 电话： +44(0)114 2222449

Judy Clegg，英国谢菲尔德大学人类交流学系院长，邮箱： j.clegg@sheffield.ac.uk.

Appendix 9 Consent Form for Significant Others

Consent Form for Significant others of People With Aphasia

Please tick the appropriate boxes	**Yes**	**No**
Taking Part in the Project		
I have read and understood the project information sheet dated 20/08/2021 or the project has been fully explained to me. (If you will answer No to this question please do not proceed with this consent form until you are fully aware of what your participation in the project will mean.)	☐	☐
I have been given the opportunity to ask questions about the project.	☐	☐
I agree to take part in the project. I understand that taking part in the project will include being video-recorded .	☐	☐
I understand that by choosing to participate as a volunteer in this research, this does not create a legally binding agreement nor is it intended to create an employment relationship with the University of Sheffield.	☐	☐
I understand that my taking part is voluntary and that I can withdraw from the study at any time; I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.	☐	☐
How my information will be used during and after the project		
I understand my personal details will not be revealed to people outside the project.	☐	☐
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.	☐	☐
I allow: Either 1. the PhD. student and the supervisors to see these data. ☐ Or 2. the PhD. student, the supervisors, other researchers (e.g. on conferences), and students (for teaching purposes) to view the data only if my face is hidden via pixilation. ☐ Or 3. the PhD. students, the supervisors, other researchers (e.g. on conferences), and students (for teaching purposes) to view the data without any pixilation. ☐		
I allow you to record me but I want the recordings to be: Either 1. destroyed in 2023 (at the end of your PhD). ☐ Or 2. destroyed in 2028 (5 years after the end of your PhD). ☐ Or 3. kept indefinitely for future research. ☐		
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	☐	☐

Name of participant [printed] Signature Date

Name of Researcher [printed] Signature Date

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