Perspectives on Medical English as a Lingua Franca

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Edited by

M. Gregory Tweedie
and Robert C. Johnson

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INTRODUCTION

ROBERT C. JOHNSON
AND M. GREGORY TWEEDIE

Observed in a large children's hospital (Thailand): A Thai doctor conducts a pre-admission assessment of a child's severe allergic reaction, with questions to the child's increasingly frantic Japanese parents – in English.

Covered in media reports (Italy): A team of medical experts from China consults with Italian health officials regarding early containment of the COVID-19 coronavirus – in English.

Observed in a diagnostic imaging clinic (Canada): A newcomer Iraqi-Canadian radiologist directs a recently arrived Venezuelan refugee through a mammogram procedure – in English.

Read on an academic careers website: A job post for a senior lecturer in traditional Chinese medicine at a Hong Kong university's medical faculty - with the requirement that lectures be delivered in English.

Observed in a medical clinic (Qatar): an Indian pharmacist deciphers the instructions of a Filipino doctor to a Qatari patient, mediated through a Sri Lankan nurse – all using English.

As children, many of us played "Telephone": a game where a message is whispered down a line from person to person, with the final player repeating what they heard - often quite different from the original message. In the observations described above, our research interest, simply put, is: *Does the original message get through?*

Language has been called "medicine's most essential technology, its principal instrument for conducting its work" (Jackson 1998, 65), and the findings of medical research literature overwhelmingly affirm this claim. Language, when effectively employed by healthcare providers, has been shown to result in a host of positive outcomes for patients, physicians,

and healthcare systems alike: from significant improvements in physical ailments; to reductions in hospital admissions, and accompanying cost reductions to overstretched health systems; and to both patients' and healthcare providers' overall physiological and psychological well-being (e.g., see Chou and Cooley 2018).

Given the important role of language in health and healing, the emergence of a single dominant language for international medical communication is in many ways unfortunate. It would seem that a basic human need is to receive healthcare in one's own language, yet this seems agonizingly far out of reach. The World Health Organization (WHO) admirably publishes its work in six languages; even so, those who speak Arabic, Chinese, English, French, Russian or Spanish as first languages account for under half of the global population (Eberhard, Simons, and Fennig 2020). Further, while the World Health Organization publishes its official documents, such as Assembly reports, in all of its six official languages, WHO clinical guidelines and technical reports - critical for matters of public health - are less likely to be available in languages other than English (Adams and Fleck 2015). This frustrating experience shared by an Arabic speaker is unfortunately common among speakers of other first languages around the world: "A close relative had been diagnosed with a rare disease. We searched for information on it in Arabic and found websites that were unstructured or were essentially chat forums … But when we searched in English we found a wealth of good quality information" (Adams and Fleck 2015, 365).

Chapter contributors to this volume all wish it were otherwise. Eight of the authors are practicing healthcare professionals, working in multilingual environments to ensure the delivery of safe and effective patient care. The issues with which their chapters grapple arise from first-hand encounters in the everyday life and death realities of hospital wards and outpatient clinics. For them, Medical English as a Lingua Franca (MELF) is not an abstract linguistic framework, but a daily lived experience, and one that adds additional layers of complexity to their already complex work.

Seven chapter contributors are language researchers and language educators; their professional lives may be one step removed from the clinics and hospitals where their students and research participants carry out their work, but MELF is not an abstraction for these authors either. The contributors who teach language in medical English for Specific Purposes classrooms wrestle daily with the best means of effectively preparing healthcare professionals for the multilingual environments they face. Precious few resources exist to support these educators in their efforts;

textbooks for medical English are dominated by native speaker models of pronunciation, receptive-only approaches to listening instruction, and pattern-driven communication models, all of which fail to reflect the multilingual, emergent, real-time, and negotiated-meaning interactions which are integral to effective MELF communication. Subsequently, any theorizing undertaken by these chapter authors is very much a real-world task, approached with the overarching concern of improving language pedagogy.

This volume then, is not focused on describing medical ELF as a concept *per se*, but is written largely from a purposive stance. While we hope - and fully expect - this book will contribute to an emerging theory of how medical ELF might be distinct from ELF in general, the reader will do well to understand that this is not the central concern of the majority of chapter authors. Healthcare communication literature is, on the whole, decidedly praxis-oriented, reflecting the pragmatic concerns which drive its research agenda; namely, the improvement of medical care for the betterment of human health, and it is with this overarching consideration that many of the chapter authors situate their work.

Readers approaching this book from an applied linguistics viewpoint should be forewarned: this outcomes-driven focus of much healthcare communication research may at times seem at odds with some critical linguistics perspectives. Terms like *native speaker*, *second language*, *language barriers* or *language proficiency* are typically left undefined in healthcare literature, for example, with their meanings assumed to be self-explanatory. We have noted elsewhere (Tweedie and Johnson, 2022) that healthcare researchers might be baffled when encountering Pitzl's (2018) asterisk use in **language* to denote critical distance from the idea of fixed and bounded linguistic entities, or Holliday's (2005) scare quotes around each mention of the term *native speaker*. Interdisciplinary research regularly runs such risks of misunderstanding as inherently different research "cultures" (Snow 1998) and orientations encounter one another.

As editors of a book bringing together interdisciplinary perspectives, we attempted to navigate such tensions. We were wary of pigeonholing chapter contributors: of forcing healthcare professionals to try to sound like scholars on translanguaging, for example. We were also deliberate in our decision to limit coverage of scholarly debates regarding the nature and historical evolution of the field of ELF; not because these discussions are unimportant, but because of our intended audience. Our intent is that this volume will be accessible to readers coming from applied linguistics perspectives (whether or not fully acquainted with scholarly

debate surrounding the evolving conception of ELF), but also to healthcare providers engaged directly with the challenges of multilingual medical communication.

Bridging this disparate readership represents a challenge, but we recognize that an advantage of edited volumes is the opportunity to bring together content for new, interdisciplinary audiences (Leal 2013). But as we have noted elsewhere (Tweedie and Johnson, 2022), accessing such content requires a particular bearing on the part of the reader. Speaking to the role of interdisciplinarity in addressing the biggest challenges confronting today's world, Fuchs (2018) asserts: "the basic requirement for scholarly engagement across research domains is the capacity to adapt a fundamentally open and experimental approach to disciplines, research questions as well as their potential for addressing societal issues" (s3). We encourage our audience to adopt such a posture as they explore differing research perspectives in this volume.

Another consequence of the book's interdisciplinary scope is its diversity of settings, contributors, types of interactions studied, and research methods. The chapters consider MELF interactions from multiple geographical settings: Canada, Finland, Hong Kong, Hungary, Japan, Romania, and Qatar, with some chapter contributors, such as Hull (Chapter Eight) and Botis (Chapter Seven) drawing upon their experiences in a range of international medical settings to inform their conceptualisation of MELF communication. The interactions considered encompass nurses, nurse educators, physicians, medical students and patients, and take place in clinics, hospital wards, medical English classrooms, simulation laboratories, and in doctor-patient consultations. Research methodologies employed include quantitative analysis of questionnaire data, textual and conversation analysis, literature reviews, and autoethnographic reflection. One contributor (Bako, Chapter Two) weaves together elements of schematic communication theory to posit a pedagogical approach to medical terminology for MELF settings.

During the writing process, all contributors expressed the challenges of having little existing MELF literature upon which to draw. ELF research is abundant, and healthcare communication research exponentially more so. Studies by ELF researchers conducted in healthcare communication contexts are scarce; this is surprising, given their increasing prevalence in medical settings across the globe: arising from factors such as migration trends of healthcare workers (OECD 2019); medical tourism (Bookman and Bookman 2007); global economic disparities (Brugha and Crowe 2015); and numerous other push and pull drivers of international migratory patterns (Van Hear, Bakewell, and Long 2018). MELF, as with ELF, is pervasive in

the zones of contact (Pratt 1991) characterising the initial decades of this century, where globally mobile populations intersect, and new communication patterns emerge.

Our hope for this volume, then, is to contribute to filling this void at the nexus of ELF and healthcare communication. An initial scratch of the surface towards establishing a realm of study that can be accessed by and contributed to by a diverse set of professionals from various disciplines and approaches. A new area of study that can benefit myriad stakeholders, including researchers, educators, healthcare institutions, practitioners, patients, and family members.

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CHAPTER ONE

REPETITION AND REPHRASING IN ENGLISH AS A LINGUA FRANCA MEDICAL CONSULTATIONS IN HONG KONG

SHAWNEA SUM POK TING AND ALESSIA COGO

Abstract

As an exploratory study in MELF doctor-patient communication, the current chapter examines ELF medical consultations in the speciality of family medicine in Hong Kong. It investigates how repetition—as a pragmatic strategy—is employed in an out-patient setting to negotiate meaning between local doctors and patients, both speaking English as a second language. Naturally occurring medical consultations were video-recorded and analysed with a conversation analytic approach, considering both the verbal and non-verbal elements in the interaction. It is observed that other-repetition and rephrasing fulfils various pragmatic functions: as confirmation of intelligibility and understanding while keeping the rhythm of the conversation, as mutual contribution to make meaning clearer during the process of meaning negotiation, and as facilitator to describe patients' symptoms or conditions. In addition to verbal repetition, this chapter presents that gestural repetition as well signals shared understanding and alignment to content, which could be missed if this non-verbal element is not recorded. The chapter ends with discussing certain features that could have specific significance in the MELF context and are not yet explored in other ELF contexts, highlighting the potential for future research in this new domain of MELF.

Introduction

Communication in healthcare is crucial, as good communication can safeguard safe and quality healthcare (Slade et al. 2016) while poor communication may jeopardise patient safety (Roat and Crezee 2015). In a globalised world, the scenario where patients and healthcare providers do not share the same first language and thus need to communicate with a lingua franca is becoming more common (Landmark et al. 2017), and the lingua franca used is often English. Yet, most existing research that looks at medical encounters in English with linguistically diverse participants comes from English-dominant contexts (e.g., Bagheri, Ibrahim, and Habil 2015; Roberts 2009; Svennevig et al. 2019). Health communication research that adopts an English as a lingua franca (ELF) framework for analysis, or ELF research that focuses on the healthcare setting is still limited.

The newly proposed research direction in Medical English as a lingua franca (MELF), referring to the (dominant) use of ELF in interactions in medical and healthcare settings (Tweedie and Johnson 2018, 2019), will hopefully contribute to filling this gap, with examining ELF pragmatic strategies in MELF interactions as a starting point (Tweedie and Johnson 2019). Previous ELF studies have shown how ELF interactants apply pragmatic strategies to achieve accurate understanding, which is essential in high-stakes ELF communication (Kaur 2017) where miscommunication will lead to serious consequences, such as that in medicine (Harding and McNamara 2018). Learning about the use of pragmatic strategies in MELF interactions will further deepen our understanding of ELF (Amery, Tweedie, and Johnson 2019) and strengthen the foundation for potential interdisciplinary research between ELF and health communication. As an early investigation in MELF, the current chapter reports from an exploratory study examining pragmatic strategies that local doctors and patients in Hong Kong employ in medical consultations conducted in ELF. Through analysing naturally occurring medical consultations with a conversation analytic approach, the current chapter will show how repetition contributes to meaning negotiation.

Repetition in ELF research

Repetition, which in this chapter includes broadly repetition of exact words, and rephrasing (e.g., Mauranen 2012), paraphrasing (e.g., Cogo and Pitzl 2016), and reformulation (e.g., Kaur 2012), has been observed as one of the pragmatic strategies that is most vigorously applied by ELF users (Matsumoto 2018a). Various studies have explored the roles that repetition

plays in ELF interactions, including averting non-understanding, enhancing clarity, confirmation of understanding and showing alignment.

To start with, speakers may avert potential non-understanding and enhance clarity through self-repetition. A non-understanding refers to instances where a listener is aware that s/he cannot understand the speaker (Bremer 1996, 40) and/or a speaker realises that the listener(s) cannot understand what is being said (Young 1999, 5; see also Cogo and Pitzl 2016, 340). So, speakers may reduce ambiguity by altering partly or completely their utterance that is perceived to be potentially unclear to the other interlocutor(s) (Cogo 2009; Kaur 2017). Speakers may also rephrase themselves simply with an intention to make their intended meaning clearer and more explicit, thus easier to be understood, without specific regard of whether there was or will be a non-understanding (ibid).

Further, speakers may co-construct the conversation and keep the rhythm of the conversation via other-repetition. Other-repetition (also "[r]epresents" (e.g., House 2010, 373) and "echo" (e.g., Mauranen 2012, 221–29) refers to the strategy "when the interlocutor replicates *part of or all* the utterance produced by a previous speaker within the *same conversation*" (Cogo 2009, 260 emphasis original). Other-repetition often comes after an utterance completion (Mauranen 2016) where after an interlocutor has supplemented the needed item for the original speaker, the original speaker and/or other interlocutors repeat the item. Repeating the utterances jointly constructed by all interlocutors helps the conversation progress (Cogo and House 2018). Especially when the repetition is produced as latching onto to the original utterance, the development of the conversation will be kept smooth, sustaining the rhythm of conversation (Cogo 2009).

Speakers also show alignment to the content and signal affiliation to the speaker by other-repetition. ELF speakers other-repeat to verify to an interlocutor that they are in line with what is said, to acknowledge and confirm understanding of the original turn (Mauranen 2012, 222–23; Cogo and House 2018; Cogo 2009). There can also be repetition after a non-understanding is solved, where speakers exhibit their alignment to the content by re-affirming shared understanding over the previous unclear item before they carry on with the conversation (Watterson 2008, 399). This also helps speakers show attentiveness and support to the other interlocutors, which boosts consensus and creates solidarity and affiliation among all interlocutors (Cogo 2009; Cogo and House 2018). It is, however, important to note that showing alignment to the content through repetition does not necessarily equal showing affiliation to the speaker. For example, a person may repeat the lexical choice of another interlocutor in the conversation, but does not agree with or affiliate to that interlocutor (Mauranen 2012, 227–28).

The ELF research explored here mainly comes from academic and other social settings, little is known about how repetition and other pragmatic strategies are employed in healthcare settings (Tweedie and Johnson 2018) where efficiency and accuracy of information exchange is crucial (Street 1991; Tweedie and Johnson 2019), and specifically, about how patients and doctors apply these strategies to co-construct understanding with ELF (Nozawa 2017). The current chapter aims at investigating the role of repetition in the negotiation of meaning in MELF doctor-patient communication.

Repetition in healthcare communication between patients and professionals

In an earlier study in MELF investigating communication between patients and medical professionals using ELF, Nozawa (2017) analyses the information-gathering stage in simulated medical interviews between student doctors and simulated patients in a Japanese university. She finds that repetition and rephrasing are typically employed for clarification and confirmation of understanding. For instance, doctors self-repeat and/or self-rephrase to pre-empt potential non-understanding, or to proactively ease understanding for the patients. Doctors also frequently repeat and/or rephrase patients' utterances to affirm mutual understanding, namely, to confirm what a patient has said. Through enhancing understanding, the delivery of patient-centred care is also enhanced by the usage of repetition and rephrasing.

In health communication, Jin and Watson (2020) enquire into the use of *playback* in naturally occurring traditional Chinese medical consultations between doctors and older adults in China from the angle of Communication Accommodation Theory (CAT). *Playback*, originally coined by Merritt (1977) to refer to the reiteration of the name of a requested item in service encounters typically as a confirmation check, is adapted by Jin and Watson (2020, 3) as "a form of immediate repetition built on a prior statement made by the interlocutor." They find that both doctors and patients use repetition to complement or converge to each other. In particular, patients use playback to signal attentiveness and to acknowledge the doctor's expertise, while doctors use playback to confirm their understanding, to indicate agreement or attentiveness, to invite the patient to expand on the topic, and/or to show empathy. In short, playback contributes to the efficient completion of medical tasks and rapport building, both of which are important in medical consultations. Although this study does not apply an ELF framework in its analysis, it nonetheless sheds light on how repetition contributes to the medical consultations, which is the focus of the current chapter.

Context, data, and participants

The data collected for this study of MELF doctor-patient communication include: video-recordings of 9 naturally occurring ELF medical consultations between 4 doctors and 9 patients at a general out-patient clinic in Hong Kong, and audio-recordings of retrospective interviews with the 13 participants. All 4 doctors (3 males, 1 female) speak Cantonese as L1; the L1 of the 9 patients (1 male, 8 females) include Castellano Spanish, Tagalog, Ilocano, and Indonesian. The medical consultations lasted from around 3 to 18 minutes, with a total of around 99 minutes. The interviews lasted from 3 to 22 minutes, totalling approximately 124 minutes. The current chapter will mainly focus on the consultations, which are transcribed using Conversation Analysis conventions (see Appendix).

Written consent and demographic details were sought from the doctors who agreed to participate.[1] The doctors then looked at their advance appointments and informed the first author to go to the clinic on days when they had patients who might be ELF users. On days of data collection, the first author went to the clinic and waited for patients who were ELF users. Upon encountering a suitable participant, the first author approached him/her to explain the study and invite participation. At the end, 9 patients gave their consent and demographic details to join the study.

After getting the patient's consent, the first author set up a camera in the consultation room. To reduce the observer's effect (Blommaert and Jie 2010, 27–28; Pun, Chor, and Zhong 2019, 199) and as restricted by the ethics approval, the first author left the room before the consultation started. After the consultation ended, the first author interviewed the patient in a separate room. The doctors were interviewed at the end of their shift. Anonymity, confidentiality, and their right to withdraw from the study were emphasised to all participants.

Other-repetition as confirmation of intelligibility and understanding

When doctors are in the process of obtaining information from patients, they regularly other-repeat at the beginning of their turn. After the patient has responded to a question, the doctor will first repeat (part of) the patient's answer, before asking a further question. It forms a cycle of "asking,

[1] After ethics approval was obtained from the Institutional Review Board of the University of Hong Kong / Hospital Authority Hong Kong West Cluster (HKU/HA HKW IRB), the study was explained to the doctors of the clinic.

answering, repeating," which recurs often in the information-gathering phase in the medical consultation. An illustration is shown below with Excerpt 1, where a doctor (d3, male) is trying to understand more about a patient's (p7, female) complaint of chest pain.

Excerpt 1:

01	d3		((looking at the computer)) so: does the pain:=
02	p7		=it looks like (.) ((pointing to the right side of her chest with her fingers;
03			d3 turns to p7)) I think (.) inside
04	d3	→	inside (.) okay is it ((pointing at individual spots with a finger)) eh eh eh
05			eh particular one spot or ((opening his palm and move in a circular
06			motion over the whole chest)) [over the whole chest?]
07	p7		[and then, I feel heavy] on my chest
08			((putting an open palm over her chest and made a circle))
09	d3	→	((turning to the computer and nodding once)) feel heavy on your
10			chest (.) so what were you doing when you feel the pain?
11	p7		((looking at d3)) I just ((d3 turns to p7)) drinking water
12	d3	→	you're drinking water (.) ((turns to the computer)) so (.) drinking water
13			makes the pain worse or makes it ((turns to p7)) better?
14	p7		((p7 and d3 looking at each other; p7 nodding)) make it better
15	d3	→	make it ((turns to the computer)) better (.) ((starts to type)) okay
16			(3) but (.) does the pain occur when you are doing ((turns to p7; p7 and
17			d3 looking at each other)) exerci:se when you are walking (.) climbing
18			up stairs?
19	p7		(1) easy tired (1)
20	d3		but ((patting his chest with an open palm)) for the pain=
21	p7		=for the ((patting her chest once with her palm)) [pain I-]
22	d3		[it occur] when you
23			are at rest or when doing exercise?
24	p7		n- when I am resting (.) and then I feel (.) [pain]
25	d3	→	[when you rest] ((nodding
26			and turns to type at the computer; P7 nods)) okay (3)

Fig. 1. Lines 5-6

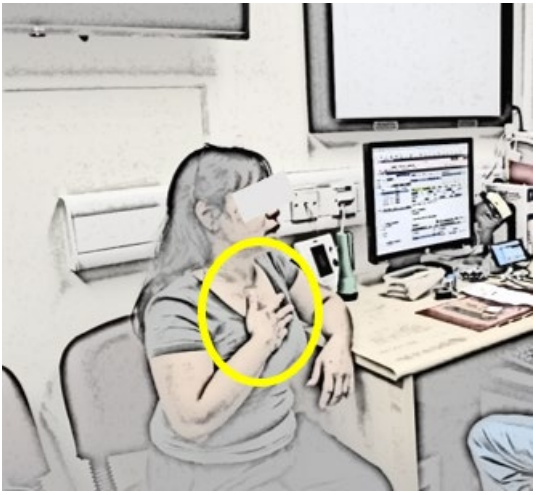

Fig. 2. Line 8

Fig. 3. Lines 20-21

Excerpt 1 starts with the doctor attempting to ask about the chest pain (line 1), with the patient already responding that the pain comes from *"inside"* (line 3) before the doctor finishes a possible question. Upon receiving the patient's response, the doctor first other-repeats *"inside"* (line 4), thus confirming his understanding of the patient, before asking about how the pain occurs (lines 4-6). To this the patient answers *"and then, I feel heavy on chest"* (line 7). At first glance, there seems to be a non-understanding, for the patient's response does not match the question. But looking at the non-verbal elements, we will see that the doctor supplements the two options in his question with two gestures—*"particular one spot"* with a pointing gesture (line 4-5) and *"over the whole chest"* with an open palm moving over his chest (lines 5-6; circled in Fig. 1)—and the patient indeed answers the question non-verbally by mirroring the doctor's second gesture with her open palm (line 8; circled in Fig. 2). Her repetition of the doctor's gesture exhibits her understanding of the question. (More on negotiating meaning with non-verbal resources is discussed in a later section.)

Receiving the patient's non-verbal confirmation of her understanding and her verbal response (*"feel heavy on my chest"* in line 7), the doctor again provides an other-repetition (*"feel heavy on your chest"* in lines 9-10) to acknowledge the patient's response and signal accurate hearing before posing another question, *"so what were you doing when you feel the pain?"* (line 10), to which the patient replies *"I just drinking water"* (line 11). As indicated by the doctor's question in the next turn—which suggests that the doctor knows "drinking water" is a remedy that the patient took but not what the patient was doing when the pain occurred—understanding seems not to

have been achieved. Even so, rather than repairing the non-understanding, the doctor still gives an other-repetition (*"you're drinking water"* in line 12) to address the patient's reply and shows his alignment to the content, and asks if *"drinking water […] makes it better?"* (line 13).

This time, the patient understands and answers the question by other-repeating the doctor (*"make it better"* in line 15). The doctor then confirms her response and his understanding by other-repeating *"make it better"* (line 16). Afterwards, the doctor goes back to his unanswered question posed in line 10. This second attempt (lines 16-18) is still not successful as the patient's reply (line 19) does not answer how the pain occurred. With a third attempt (lines 20, 22-23) where the doctor fronts the topic (Mauranen 2012, 191-198) of his question (*"for the pain"* line 20) and gives a gesture modifying the one that denotes chest pain earlier in lines 5-8 with an open palm patting his chest (line 20; circled in Fig. 3), the patient eventually grasps the question. She repeats the gestures on herself (line 21; circled in Fig. 3) before answering that the pain occurred *"when I am resting"* (line 25). The doctor then produces the last other-repetition in the excerpt *"when you rest"* (line 25), together with nods from both the patient and himself (lines 25-26), and one more final *"okay"* (line 26) to indicate his understanding and confirm the patient's answer.

Excerpt 1 shows how the aforementioned cycle of "asking, answering, repeating" takes place with the doctor frequently beginning his turn by an other-repetition to affirm his hearing and understanding before he presents another question to the patient (lines 4, 9, 12, 15, 25). Therefore, beyond confirming understanding (Cogo and House 2018), other-repetition also facilitates the flow of the medical consultation by keeping the rhythm of the conversation (Cogo 2009), as if it is an "introduction" to the question or content that follows. This rhythm enables the doctor to address the patient's response by showing him/her that "I heard you" while leading the conversation. Excerpt 2, focusing on the verbal aspect, also exemplifies how other-repetition signals intelligibility and understanding, and keeps the rhythm of the interaction. In this excerpt, the doctor (d1, female) asks about the patient's (p9, female) living habit for her diabetes control and starts with talking to the patient about her blood pressure reading at home. (The doctor is constantly typing and clicking at the computer throughout this excerpt, but this is not transcribed below except to indicate the activity during a silence.)

Excerpt 2:

01	d1		did you: usually check at home?
02	p9		yes hmm the same
03	d1	→	=the same=
04	p9		°=yes°
05	d1		one twenty over eighty something=
06	p9		=°yeah°=
07	d1		=like that
08	p9		°like that° (.) sometimes one hundred ten
09	d1	→	sometimes one hundred ten
10	p9		°(ye- over)° eighty
11	d1	→	over eight (.) that's quite good 吓 /ha/* ((typing at the computer)) (1) so you
12			remember to take the medicine every day?
13	p9		yes [°(everyday in the)°] morning
14	d1		[everyday]
15	d1	→	morning ((clicking at the computer)) (1) how about exercise?
16	p9		yes
17	d1		you do=
18	p9		=walking
19	d1		walking exercise (.) every day?
20	p9		every day walking
21	d1		喔 /o/* (1) how about the diet?
22	p9		er vegetables and fruits
23	d1	→	vegetables and fruits (.) le:ss er salty?
24	p9		less salty=
25	d1		=how [about fat]?
26	p9		
27	d1	→	less oily 喔 /o/* that's also good

* 吓 /ha/ and 喔 /o/ are Cantonese particles that are minimal responses (to signal understanding).

The doctor initiates this part of the consultation by asking whether the patient checked her blood pressure at home regularly (line 1). The patient expresses she did and that the reading was *"the same"* (line 2) as the reading she just took at the clinic. The doctor then first other-repeats *"the same"* (line 3) to confirm the patient's response, before supplementing *"one twenty over eighty something"* (line 5), *"like that"* (line 7) to affirm the reading. The patient then also first other-repeats *"like that"* (line 8), before supplementing *"sometimes one hundred ten"* (line 8). The doctor then once again repeats *"sometimes one hundred ten"* (line 9), before the patient adds *"over eighty"* (line 10), which doctor repeats (line 11).

A similar pattern of repeating and adding continues when the doctor asked if the patient took her medication every day (lines 11-12). The patient answers *"every day in the morning"* (line 13). The doctor repeats *"morning"* (line 15), then asks about the patient's exercise habit (line 15).

When the patient answers *"walking"* (line 18), the doctor repeats *"walking exercise"* (line 19) first, then asks *"every day?"* (line 19), to which the patient answers *"every day walking"* (line 20), repeating both the doctor and herself. Finally, repetition occurs rapidly when the doctor asks about the patient's diet (line 21). The patient says *"vegetables and fruits"* (line 22), the doctor repeats *"vegetables and fruits"* (line 23). The doctor asks *"less salty?"* (line 23), the patient repeats *"less salty"* (line 24). The patient adds *"less oily"* (line 26), the doctor repeats *"less oily"* (line 27), closing this part for checking the patient's lifestyle habits.

This excerpt showcases how the rhythm of "repeating, and adding, repeating, and adding" dominates this phase of the consultation, as if it is the structure that the participants implicitly follow to develop the conversation. With this rhythm and structure to begin a turn with an other-repetition—and not just by the doctor as in Excerpt 1, but also occasionally by the patient as in Excerpt 2—both doctors and patients are showing that what is previously said is intelligible and heard accurately (regardless of whether the response answers the question): the conversation progresses based on accurate hearing and understanding, which is indicated by the employment of other-repetition.

Repetition and rephrasing as mutual contribution to make meaning clearer

Whereas the previous section shows that repetition is produced (primarily by doctors) when intelligibility and/or understanding is achieved, this section illustrates that repetition and rephrasing is performed by both patients and doctors as a mutual contribution to make meaning clearer during meaning negotiation, the process to achieve understanding. The first case in point is Excerpt 3 where the doctor (d2, male) attempts to confirm how much medication the patient (p3, female) still possesses for her chronic disease.

Excerpt 3:

01	d2	((looking at the computer)) do you still have enough medication?
02		((turns to p3 at '-cation'))
03	p3	((p3 pouts)) no: ((p3 slightly shakes her head))
04	d2	no more today
05	p3	((p3 looking away; d2 still looking at p3)) er:
06	d2	or:=
07	p3	=I think only the three, the: ((turns to d2)) new medication I think
08		((starts scratching her neck and frowns)) around three pieces left (1)
09	d2	((p3 and d2 looking at each other)) oh (.) oh left
10	p3	((nodding once)) yeah=

11	d2	→	=just (.) that mean three (.) three pills still remain
12	p3	→	three days for three days
13	d2	→	oh three days still remain (.) right?
14	p3		((nodding once)) yeah ((p3 turns to the computer))
15	d2		so you're still taking every ((turns to p3)) day
16	p3		((nodding once)) yeah
17	d2		((nodding once)) great ((turns to computer and starts to type))

Fig. 4. Line 8

Meaning negotiation in Excerpt 3 begins with the doctor asking the patient if she still had enough medication (line 1). After receiving the patient's short verbal response (*"no"* in line 3), the doctor tries to clarify the patient's meaning by expanding her reply to *"no more today"* (line 4). The patient's reaction, however, possibly indicates uncertainty when she utters a lengthened *"er"* while looking away from the doctor (line 5), and then says *"around three pieces left"* (line 8) while scratching her neck and frowning (line 8; circled in Fig. 4). To affirm the patient's meaning amidst the signs of hesitancy, the doctor first other-repeats *"left"* (line 9) with an emphasis, which is confirmed both non-verbally and verbally by the patient with a nod and *"yeah"* (line 10), then other-rephrases the patient's response to *"that mean three pills still remain"* (line 11) to signal his understanding and confirm the information given by the patient. The patient then contributes to the clarity of meaning by further other-rephrasing *"three pills"* to *"three days for three days"* (line 12). To complete this process of meaning negotiation, the doctor contributes by saying *"three days still remain"* (line 13), repeating the patient's use of *"three days"* and his previous use of *"remain,"* concluding the sense of shared understanding that is created (Watterson 2008). This understanding is endorsed by the patient again with both a nod and *"yeah"* (line 14).

Both the doctor and the patient in Excerpt 3 co-construct meaning by repeating and rephrasing each other's lexical choices that are salient to the meaning under negotiation. They both actively partake in the process through mutually contributing to the clarity of the meaning expressed (Mauranen 2012, 222), demonstrating that achieving understanding in ELF interactions is a *"joint act"* by interlocutors (Matsumoto 2018b, 236). Excerpt 4 is another exemplification where the patient (p5, female), who has regular follow-up appointments for her asthma, and the doctor (d2, male) collaborate to describe the patient's recent cough.

Excerpt 4:

01	d2		((looks at p5 once, then turns to click at the computer)) so: cough two
02			weeks (.) lately (.) right? okay ((starts typing))
03	p5		°I think ((frowning)) maybe° ((d2 turns to p5)) too much air con
04	d2		too much air ((d2 turns to computer)) con?
05	p5		((looking at d5)) yeah @@
06	d2		@ ((looking at the computer)) is it improving? ((turns to p5)) (1)
07	p5		((d2 and p5 looking at each other)) the room the room maybe too cold
08	d2		mhm: ((d2 looks up and away)) (1) but not ((turns to the computer
09			screen)) no: recurring cough I mean: no ((making circular movements
10	p3	→	with both hands)) cough repeatedly ((turns to p5)) °right?°
11	p5		((shaking her head)) no no (.) ((d2 turns to computer to types while
12			nodding)) just (.) it's not (.) ((d2 turns to p5)) eh ((making a circular
13		→	movement loosely with one hand)) continuous cough
14	d2	→	((turns to the computer, nodding)) it's not continuous cough ((starts to
15			type))
16	p5		°no°
17	d2		°I see°

Fig. 5. Lines 9-10

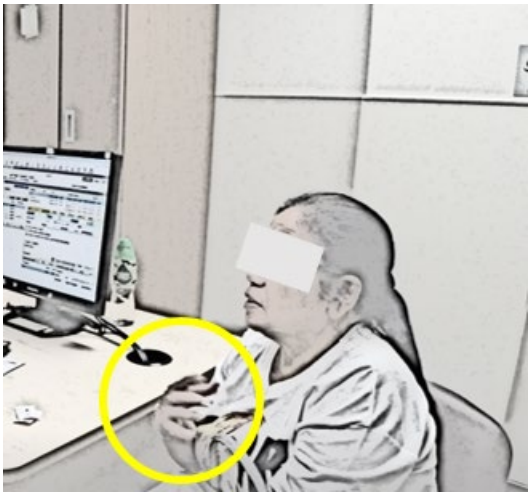

Fig. 6. Lines 12-13

The excerpt starts with the doctor asking about a cough (lines 1-2) that the patient mentioned earlier in the consultation, when she said it lasted two weeks. The doctor felt confused about the time course of the cough (as he said in his interview) and wanted to know clearly if the cough appeared only two weeks ago or throughout the past two to three months following her last appointment. The excerpt goes on with the patient sharing that the cough might be caused by *"too much air con[-ditioning]"* (line 3), which is indeed not the main concern of the doctor at the moment. The doctor asks if the cough was improving (line 6), but the patient does not respond accordingly (line 7). Then the doctor makes his focus more explicit by asking if there was *"no recurring cough"* (line 9), and immediately self-rephrases to *"no cough repeatedly right?"* (lines 9-10), which was accompanied by a gesture with which the doctor makes forward circular movements with his two hands (lines 9-10; circled in Fig. 5). The patient shows her understanding of the question and answers it first by shaking her head and saying *"no no"* (line 11), then supplements it with *"it's not eh continuous cough"* (lines 12-13), other-rephrasing the doctor's previous turn. Non-verbally, the patient also "repeats" the doctor's gesture to one with which she made loose, forward circular movements with one hand (lines 12-13; circled in Fig. 6) to accompany "*continuous cough*." Finally, the doctor affirms this information and his understanding by other-repeating the patient *"it's not continuous cough"* (line 14). This process of meaning

negotiation ends with the patient confirming one last time with a minimal response *"no"* (line 16), which is addressed by the doctor's *"I see"* (line 17). These rapid exchanges of rephrasing and repetition demonstrate how the doctor and the patient collaborate to show their understanding and to make meaning clearer to the other in their interaction.

Other-repetition as facilitator to describe patients' symptoms or conditions

Moving from the previous two sections where repetition is performed by mainly doctors and both doctors and patients, this section focuses on when repetition is employed mainly by patients. It shows that repeating the doctor's verbal or non-verbal expressions seems to help patients describe their symptoms or conditions to the doctor. An example comes from Excerpt 5 where the doctor (d2, male) asks about the cough of a patient (p5, female) with asthma.

Excerpt 5

01	d2		((typing at the computer)) any wheezing (.) ((turns to p5; imitates
02			some high frequency sound)) hmm:=
03	p5		((p5 and d2 looking at each other; p5 frowning)) =sometimes
04	d2		@
05	p5		yeah@@
06	d2		=yeah=
07	p5		=when I'm sleeping (.) ((p5 looks slightly to the side; d2 continue to
08		→	look at p5)) sometimes I can hear (.) the wheezing
09	d2		wheezing (.) you can feel that
10	p5		((nodding)) yes ((turns to d2))
11	d2		((putting his hand next to his ear)) listen (.) you can hear that
12	p5	→	yeah I can hear that
13	d2		((turns to the computer, nodding)) okay (.) what was it like (.)
14			((imitates some high frequency sound)) /yi:/ ((turns to p5))
15	p5	→	((opening her eyes more widely, nodding)) yeah yeah (.) it's like ((imitates
16		→	some high frequency sound)) hmm: like that
17	d2		okay ((turns to types at the computer)) (1) but you feel okay other than
18			the ((looks at p5)) wheezing ((turns back to the computer))
19	p5		((nodding)) yup yup (.) I'm okay
20	d2		any difficulty in breathing: ((turns to p5))
21	p5		((shaking her head)) no ((d2 turns to type at the computer))
22	d2		when you are sleeping (.) any difficulty in ((turns to p5)) breathing:
23	p5		ah no (.) I'm okay ((d2 turns to the computer))
24	d2		you feel fine ((types)) (.) ((shows gestures of running)) if [you're]
25	p5		[I mean] ((d2
26			turns to p5)) I spray the (.) the steroid before I go to sleep
27	d2		((d2 nodding)) yeah? you're on [steroid]?
28	p5	→	[( ) I'm] on steroid ((p5 and p2 nodding

29			at each other)) (.) yeah
30	d2		((gestures spraying the steroid)) puff right?
31	p5	→	((nodding once) yeah puff

At the beginning, the doctor asks the patient if she could hear any *"wheezing"* while breathing, and produces a high frequency sound to imitate wheezing (lines 1-2). The patient replies that when she was sleeping, she could *"hear the wheezing"* (lines 7-8), other-repeating the doctor's use of *"wheezing."* The doctor then confirms this information by other-repeating and fronting *"wheezing"* to his turn *"wheezing you can feel that"* (line 9), which is confirmed by the patient with a nod and *"yes"* (line 10), before he further affirms this information by rephrasing himself to *"listen you can hear that"* (line 11). This time the patient provides a more explicit answer by saying *"yeah I can hear that"* (line 12), repeating the structure used by the doctor rather than giving only a brief response as her last turn (line 10).

Receiving the patient's explicit reply, the doctor gives an acknowledgment with *"okay"* (line 13). Then he goes on to ask about the manner of wheezing with *"what was it like"* (line 13) and produces a high frequency sound to imitate wheezing (line 14). The patient responds to this question by repeating the structure of the doctor's turn: she first says *"it's like"* (line 15), then also produces a high frequency sound to imitate the wheezing that she felt (line 16). After the doctor acknowledges the patient's response with *"okay"* (line 17), the conversation goes on with the doctor and the patient talking about how she was doing in general (lines 17-19) and if she experienced any difficulty in breathing (lines 20-24). The patient expresses that she was fine (lines 19, 21, 23) and that she would *"spray the steroid"* before going to bed (line 26). The doctor then gives a confirmation check (Kaur 2010, 200) *"yeah? you're on steroid?"* (line 27), to which the patient confirms explicitly by other-repeating the doctor *"I'm on steroid"* (line 28), which is simultaneously confirmed non-verbally by both the doctor and the patient nodding to each other (lines 28-29), before the patient further supplements *"yeah"* (lines 29). But the confirmation process is not ending. The doctor continues to add *"puff right?"* while performing a gesture imitating spraying a steroid puff (line 30). The patient confirms non-verbally with a nod and verbally by other-repeating *"yeah puff"* (line 31).

Excerpt 6 shows that the lexical choice or expressions used by the doctor may have given the patient a "template" about how to describe her condition. Therefore, other-repeating the doctor's turn (lines 8, 12, 15,16, 28, 31) seems to have helped the patient "learn" a way to give a more explicit answer when responding to the doctor, since the patient, without the medical knowledge and vocabulary that the doctor possesses, may not know

how (else) to describe her condition. Other-repeating the doctor seems to have helped ease this knowledge asymmetry (Mondada 2011a) as it provides the patient the expressions she may need to describe her conditions. This in turn helps enhance the doctor's understanding of the patient and affirm the information that the doctor is gathering from the patient.

Besides the verbal aspect, repetition can take place non-verbally. For instance, the patient imitates the doctor's production of a high frequency sound to describe her wheezing (lines 16), an instance where the non-verbal element demonstrated by the doctor becomes a resource that "inspires" the patient how to express her condition. Also, in Excerpt 1, when the doctor asks whether the patient experienced chest pain at a particular spot or all over her chest (lines 4-6), the patient responds that it was all over the chest by other-repeating the doctor gesturally: the doctor opens his palm and moves it over his chest (circled in Fig. 1) to represent pain all over the chest; the patient produces a highly similar gesture (circled in Fig. 2). Therefore, the gestures provided by the doctor in this instance, similar to the expressions being verbally repeated in Excerpt 5 and 6 above, seem to be facilitating the patient to describe her condition: the patient can express her symptoms by repeating the appropriate gesture from the doctor.

Repetition of gestures as a signal for understanding and alignment to content

Other instances of repetition of gestures in Excerpt 1 and Excerpt 4 show that gestural repetition from a patient can also demonstrate that she understands the doctor and that she aligns with the content of the doctor's turn. The first example occurs in Excerpt 4 where the doctor and the patient are in the process of establishing a shared understanding that the patient's cough was not a recurrent one. Simultaneously when the doctor says *"no cough repeatedly,"* he makes some forward circular movements with his hands (line 9-10; circled in Fig. 5). To display that she endorses this understanding, besides saying "*it's not eh continuous cough*" (line 12-13), the patient also imitates the doctor's gesture by producing the same circular movements, albeit with only one hand (line 12-13; circled in Fig. 6). The patient's gestural repetition of the doctor offers an extra indication that she understands the doctor and aligns with the content of the conversation (i.e., she is following the conversation) in addition to just her verbal repetition.

In Excerpt 1 when the doctor attempts for the third time to ask the patient when her chest pain occurs, he pats his chest once with his open palm concurrently as he says *"but for the pain"* (line 20; circled in Fig. 3)