Avoiding repair, maintaining face: responding to hard-to-interpret talk from people living with dementia in the acute hospital

Introduction

There are currently estimated to be 920,000 people with dementia living in the UK (LSE, 2019). The vast majority of people living with dementia are over 65 years old, with prevalence increasing with older age (Alzheimer's Society, 2014). Many have co-morbidities and frailty, making them susceptible to acute illness. When PLWD are acutely medically unwell (for example falls, or infections), they are typically admitted to acute hospital wards which are designed to address their acute medical needs and not the specific challenges that dementia might entail. Around a quarter of acute hospital beds are occupied by PLWD over 65 years old (Alzheimer's Society, 2019). The unfamiliar environment of an acute hospital presents a particular challenge for the PLWD and this impacts on the staff who care for them (Houghton et al., 2016; Dewing and Dijk, 2016). Behaviours associated with dementia, such as agitation or disinhibition, can present an additional challenge for care delivery (Author ref a). Staff also report feeling underprepared for dealing with the more general communicative challenges that can arise when caring for PLWD (Griffiths et al, 2014). However, and as we have previously noted, (Author ref b; Author ref c), best practice recommendations in the field tend not to be based on actual interactional evidence, and/or lack the specificity that might be required to implement these in a care rather than conversational setting. For example, the Alzheimer's Society in the UK produces a list of tips for communicating with people with dementia (https://www.alzheimers.org.uk/about-dementia/symptoms-and-diagnosis/symptoms/tips-for-communicating-dementia): this includes recommendations for careful listening, for trying to choose a good time and location (and considering postponing to achieve this), and for rephrasing an utterance to a PLWD where necessary, rather than repeating it. While such tips set a useful context for conversational interaction, they are potentially problematic in an acute care setting, where difficulties may persist but where it may not be practical to postpone or avoid further discussion of a topic or area where misunderstanding has arisen. In this paper, we identify some of the specific practices through which healthcare professionals (HCPs) manage one particular source of misunderstanding: the production of hard-to-interpret talk (broadly, talk which is difficult for the recipient to understand) by PLWD. We also consider the implications of these specific practices for the practitioner/patient

relationship in the context of dementia care. Our underlying premise is that the communication expertise of skilled practitioners can be made explicit through the study of real-life interactions. Once specified, it can then be used to improve patient care.

Background

How people come to a shared understanding of the world through social interaction has been a fundamental concern for sociologists since the work of Mead and Blumer at the turn of the 20th Century. As Goffman (1955) explicates, every person lives in a world of social encounters, involving face-to-face or mediated contact with others. However, achieving a mutual understanding is not the only goal within these encounters, and in addition, participants are generally concerned both to present themselves positively and to support a positive presentation of others. Goffman (1955) uses the term 'face' to describe the positive social value that results from how others receive a particular instance of social contact. It follows from this that work to repair any breakdown of mutual understanding in interaction is socially sensitive: if the problem can be perceived as due to some personal insufficiency, then repair work can be a face-threatening act.

Whilst Goffman's work was fundamental in establishing face-to-face interaction as a legitimate realm of enquiry within sociology, his work has been criticised for a focus on interaction as an individual psychological concern rather than one of wider social systems and order (Schegloff, 1988). Drawing on Goffman's observations, but moving into a more detailed empirical analysis of naturally occurring talk, there is a long history of conversation analytic (CA) work examining precisely how repair is managed in interaction. CA is a research method that originates in sociology but draws on insights from other disciplines such as psychology and linguistics (see ten Have, 2007). Its aim is to study the structure and order of naturally occurring talk in interactions, and, importantly for the topic at hand, it treats interaction as a collaborative achievement. In CA terms, repair is defined as addressing "problems in speaking, hearing and understanding" (Schegloff et al 1977: 361). Drew (1997:69) expands on this by noting how "when a party has difficulty understanding something another has said, or a difficulty hearing what was said, or figures that what the other said might in various ways be wrong, inaccurate or perhaps inapposite", then they may take steps to rectify that through initiating repair. Research has shown that repair is generally treated by participants as a 'priority activity', i.e. establishing a shared understanding takes precedence over the progressivity of an interaction: as Schegloff puts it, repair most commonly occurs "intrusively" in a sentence occupied with something else (Schegloff 1979: 268). The ongoing course of action is interrupted, in order to attend to the possible trouble in speaking, hearing, or understanding (Kitzinger, 2013). CA researchers

have also provided systematic empirical evidence for Goffman's (1955/1967:11) claim that "a person tends to conduct himself during an encounter so as to maintain both his own face and the face of other participants". Schegloff et al (1977) highlight that self-correction and other-correction are not to be treated as structurally equivalent and it has been demonstrated that interaction is ordinarily organised to allow the person who has produced the utterance in need of repair a chance to repair it for themselves; what CA researchers call a *preference* for self-initiated repair. In the same way, other-initiated repair is dispreferred because it presents a challenge to a 'world known and held in common' (Drew et al 2013:93). However, Schegloff et al (1977) note one specific context where other-initiated repair is not as infrequent- adult/child interaction. They propose that this can be explained by the fact that children are generally treated as 'not yet competent', so that other-correction in this context should be viewed as part of the wider process of socialisation.

Moving beyond this foundational work on mundane, or 'ordinary' conversation, some CA researchers have continued this work in 'atypical' populations, studying contexts where the capacity of one or more of the participants to communicate is impaired by reason of an underlying condition. Antaki and Wilkinson (2013: 535), in their overview of some of this work, highlight that other-initiated repair is more common in some of these settings. The reason they propose for this is also competency related, suggesting that in some contexts for atypical talk, such as interaction with a person with aphasia, "the same type of linguistic impairments which led to the trouble source also make it difficult for the speaker to produce self-repair". Where there are cognitive as well as linguistic differences between participants, the interactional context can become even more complex. Antaki et al (2020:975), using data from gardening groups for people with learning disabilities, identify the use of other-initiated repair as a potential means to "avoid further frustrating turns". However, they also observe that interactions in their setting are commonly structured using sequences of instructions. Since these sequences require only minimal responses, they also function to make any need for repair less likely in the first place. Additionally, and in contrast to the findings in aphasia, Antaki et al (2020) identify instances where staff pass up the opportunity to initiate repair, by simply ignoring an utterance or responding only minimally. They suggest that the use of these approaches may be borne out of a need to balance conflicting demands: the commitment to help clients express themselves versus a need to get a service or activity completed.

Turning specifically to consider research in the field of dementia, several systematic reviews of empirical studies of recorded interaction with PLWD have been carried out. However these reviews selected studies from contexts other than acute care: namely,

everyday interactions in familiar settings (Kindell et al., 2017) and healthcare interactions excluding inpatient or residential settings (Dooley et al., 2015). The acute hospital differs to the day care setting in that healthcare professionals need to complete a range of tasks to meet the healthcare needs of the PLWD as well as their personal care needs. Family or day care settings are more oriented to providing a social and stimulating environment, and there is generally less of a focus on getting tasks done in a timely way. Nevertheless, findings present a diverse picture of the interactional skills that PLWD display in their interactions, in the face of deteriorating abilities: these include their ability to do repair work; to 'perform' storytelling; and to remain active participants in conversation. Communication partners in various settings are shown to use practices which support the inclusion and participation of the PLWD (often referred to as 'conversational scaffolding'), and in avoid actions which might highlight a lack of competence in the PLWD, thereby preserving face.

However, none of the above studies directly address the issue of how communication partners in these contexts deal with hard-to-interpret talk. Lindholm and Wray (2011) note that professionals leading a quiz in a day care setting for PLWD sometimes avoided highlighting 'incorrect responses', instead glossing over misunderstandings in order to continue with the activity. In further research in a day care setting, Lindholm (2015:176) notes that PLWD can confabulate (that is, utter statements unaware of their falsity) and describes how this confabulation potentially 'threatens the shared world that is normally presumed as the basis for communication'. In her analysis, based on data from interactions with a single PLWD, she shows how responses move along a spectrum from acquiescence to non-committal responses, but not to correction. As Lindholm puts it, "If a person is known to confabulate, this poses a dilemma for his/her conversational partners, who are recurrently placed in situations in which the presumption about a shared world as a basis for communication may not hold" (Lindholm, 2015:177).

Using data largely collected from family home settings, Lindley (2016) describes how various family members dealt with a woman's expressions of her "disordered reality" without exposing her cognitive impairment. Aligning responses included minimal tokens ("yeah", "right"), generalised responses (such as "lots of people like that") and very occasional colluding responses (for example if a PLWD said that they were waiting for their (deceased) husband to come home, the conversational partner might reply "I'm sure he won't be long" (Lindley, 2016:196)). If repair was initiated, repetition of all or part of the trouble source was used, which Lindley argues is a means to initiate repair without contradicting the speaker. On other occasions repair sequences were abandoned. Correcting responses were seen to occur in the family context, but almost

always in a modulated way, with use of address terms, accounts and/or humour, as is common in ordinary talk during 'other correction' (Schegloff et al 1977).

Confabulation is not the specific phenomenon under investigation here, although it did occur in our dataset. One possible response to confabulation is the so called 'therapeutic lie', where caregivers use verbal deception in response to expressions of different realities from the person with dementia (Seaman and Stone, 2015), and thereby avoid drawing attention to any lack of a shared world. However recent debates have concluded that lying to PLWD should ideally only occur as a last resort, be well-thought out and documented as in their best interest, and be delivered consistently (James et al 2006; James, 2015; Kirtley and Williamson, 2016). Alternative responses which have been promoted include looking for alternative meaning (such as unmet physical or emotional needs), or attempting to distract the PLWD (Hertogh et al 2004; Kirtley and Williamson 2016). These recommendations underline the difficult and highly skilled interactional work that is required of HCPs in this setting, and go some way towards illustrating why care staff find communication in this context so challenging. Building on this prior work, our study sets out to establish how staff manage hard-to-interpret talk in the specific setting of the acute hospital ward, on the basis that practices which can be specified can be used to improve staff training and ultimately, patient care.

Methods

Wider Study

This work follows on from an initial study funded by the UK National Institute for Health Research, Health Services and Delivery Research (reference withheld for peer review). The objective of the initial study was to design and evaluate a communication training intervention for HCPs caring for people with dementia in acute hospitals (see Author reference. We received Ethical approval from the Yorkshire and Humber - Bradford Leeds Research Ethics Committee (reference withheld for peer review). Findings from this initial study, drawing on the same dataset, have been published in this journal (Author references b and c) and elsewhere (Author ref d), and have been used to inform a training course for HCPs (reference withheld for peer review). On completion of the initial study, we received follow-on funding from CLARHC East Midlands, a collaborative regional partnership between universities and NHS organisations, focused on improving patient outcomes through the conduct and application of applied health research. This funding was to continue studying the dataset in order to expand the scope of the training intervention that had been developed, with a particular focus on the delivery of person-centred care.

Data Collection

We recruited 41 healthcare professionals (HCPs) including medical, nursing and allied health professionals (AHP). Participants were recruited from six of eight Healthcare of the Older Person wards at one large acute teaching hospital in the UK. Of these 41 HCPs who could possibly be video-recorded, only 26 (from 3 different wards) were actually filmed for the study, as they could only be filmed when working with a patient who had also given consent. Some HCPs were recorded more than once, but none more than three times.

Twenty-seven patients were recruited to the study, 17 women and 10 men, of whom 26 were filmed, some more than once. All patient participants had a diagnosis of dementia documented in their medical notes and were considered by staff on the ward to display some level of communication difficulty in their interactions. We did not include patients who had an additional diagnosis of Parkinson's disease, if they did not use English in their interactions or if they were judged to be in their final week of life by medical staff. Given the context of the study, our recruitment process included an initial assessment of the patient's mental capacity to consent to taking part. This was conducted by two of the research team who were both experienced clinicians (speech and language therapists). Where a patient lacked capacity, an unpaid carer such as a family member was asked to act as a personal consultee as provided for under section 32 of the Mental Capacity Act (2005). All patients recruited to the study lacked capacity to give informed consent for the study. Under the MCA, this is permitted if there is no other way for research of comparable effectiveness to be carried out. The challenges of hard-to-interpret talk are much more likely to occur with people who have moderate to severe cognitive impairment. To have only conducted this research on patients with capacity to give informed consent would have missed the population who experience the problems we are investigating, and whose care we aim to improve.

Between September-November 2015 we recorded a total of 41 routine healthcare encounters, with an average length of 9.24 minutes. Differing lengths reflected the different tasks HCPs were engaged in with patients, and also the degree of ease or otherwise with which these tasks were carried out. No upper limit was set on the length of each recording, since the aim was to record the interaction as it would naturally have occurred. We recorded a wide range of healthcare tasks (e.g. physical examinations, changing wound dressings, support with eating and drinking) but for ethical reasons we did not include any intimate care. Encounters were filmed based on the convenience and agreement of all participants. Because of the planning involved in setting up the equipment and ensuring the PLWD was comfortable with the camera presence, all of our

recorded interactions were initiated by the HCP. To avoid overburdening any individuals, no participants were filmed more than three times.

For each recording, patients' interactions were classified by the researcher-clinicians as mildly, moderately or severely communication impaired, and an effort was made to gather a spread of data across these broad categories (27% mild; 54% moderate; 19% severe). Of the data collected, 41% of recordings were from male participants and 59% from female. All of our participants were over the age of 65 (a pre-requisite for admission to the wards studied), and all were White[1]. As a result of our data collection processes, all of the interactions we recorded were initiated by HCPs, and we acknowledge that PLWD may have been better prepared to participate in interactions they initiated on their own behalf. Our dataset does contain examples in our dataset of PLWD participating fully in the recorded interactions, and displaying many interactional competencies. However, the purpose of the funded project was to identify trainable practices HCPs use in the face of communication challenges in the acute hospital setting, and so this guided our analytic focus.

We analysed the data using conversation analysis. The method has been widely used to study healthcare interactions (e.g. Heritage and Maynard, 2006, Author ref e), and has been previously used to study other aspects of the data collected for this study (Author references b and c). Recordings were transcribed using standard CA procedures (Jefferson 2004) and subjected to repeated close examination, considering recordings and transcriptions together. The analysis was conducted by the analytic team in three stages, after Sidnell (2013): observation of the dataset; identification of the phenomenon of interest and collection of all examples from across the dataset; then use of both single encounters and comparison across multiple examples, to describe the practice. Preliminary findings from the analysis were presented at monthly group data sessions attended by all authors along with members of the wider project team. At these data sessions we developed and refined the analysis, working to establish a robust and shared understanding (ten Have, 1999).

Analytic focus
The specific focus of this paper is hard-to-interpret talk and how this is -or is not- repaired in this setting. Our initial interest in this phenomenon was for two reasons: firstly because of its prevalence in our data (25 of the 41 recorded interactions contained hard-to-interpret talk, and 21 contained multiple instances), and secondly because it was repeatedly identified as a clinical issue of concern during training delivery for the (name of programme withheld for blind review). The definition of hard-to-interpret talk

we applied was wide ranging, but included all PLWD talk which was oriented to by the HCP as hard to hear and/or hard to understand, so that it potentially resulted in the need for repair in order for the interaction to be continued. One reason for the prevalence of these utterances in our data is that there are a number of specific dementia-related difficulties which can contribute to making talk hard-to-interpret, including word finding difficulties and word selection errors (Hopper, 2007), In addition to this, commonly co-existing conditions such stroke can also lead to quiet vocal volume and reduced articulatory accuracy. Across our data set and consistent with the observational literature (see the reviews by Kindell et al 2017 and Dooley et al 2015) there were examples of sentences or narratives that were not internally coherent, or where the topic of talk was unclear or not shared. We therefore set out to examine the management of this phenomenon within our data. We were particularly interested in the ways in which HCPs were currently managing this issue.

The particular problem of analysing (lack of) repair

It is important to state at the oustet that we do not categorise the talk of PLWD that we present in this paper as 'errors'. Instead, in the instances we show, their talk leads to a breakdown of shared understanding, in that the relevance of their contributions is not immediately discernible to the HCPs who are interacting with them. As the literature review at the outset of this paper has described, in everyday talk we would expect most hard-to-understand talk to be dealt with through the well-documented process of 'repair' – that is when trouble occurs in understanding each other, participants work to reach a shared or mutual understanding. However, it was quickly apparent that there is very little of this 'standard' repair in our data. This leads to a potential methodological problem for CA researchers: that of analysing something in its absence rather than its presence. This is a problem identified by Schegloff et al (1977:375) in their initial explication of repair in interaction, where they note "The 'repair space' is to be understood as a 'repair initiation opportunity space'", so that even if repair does not occur, a potential repairable "has nonetheless been attended by the full complement of repair-initiation opportunities, none of which happen to have been taken". Jefferson (2017) returns to this issue in her work on error and corrections in ordinary talk, where she found few cases of non-corrected errors. From a CA perspective, she notes that the difficulty is being able to claim that some or all participants are aware of the error and thus may be characterized as "doing 'not correcting an error'" (Jefferson 2017: 314). In her data, Jefferson uses the example of an interaction between Greta and a salesperson to identify how we might use the term 'observably relevant error' in the absence of any kind of overt correction. Greta has sent a tuxedo shirt to the cleaners, where it was lost,

so now needs to get hold of one at short notice. She has rung a bridal shop where she has been told she can hire one, but then asks a question about the specific design of the shirt:

```
1. Greta: .tOkay now these er the tuh- this is the tu[cked
2. Sales:                                           [Regular
3.         tux shirt en you c'n rennit fer two dollars.
4. Greta:  Okay en it's (.)it has the tucked fron' ↑innit
5. (0.4)
```

In her analysis of this extract (of which only the first five lines are reproduced here) Jefferson argues that her warrant for treating this as an 'observably relevant error' is that Greta, having said 'tucked', can be said to be aware that 'Regular tux shirt' is wrong, even in the absence of producing any correction. Instead, she puts things to rights by asking 'for the first time' about the front of the shirt in line 4; rather than a correction, she produces an acceptance ('Okay') followed by a next question.

We argue that the same principle of 'observable relevance' is true of the interactions we analyse here. Our data show instances of HCPs managing an 'observably relevant' breakdown in shared understanding. As our analysis will illustrate, some of these instances may lead to repair, while others, following Jefferson (2017), show HCPs doing 'not doing repair'. These actions by the HCPs enable a continuation of interaction between PLWD and HCPs which avoids challenging or drawing attention to the interactional competency of the PLWD, and so in Goffman's (1955) terms, maintains 'face'.

Approaching and avoiding repair

As a result of our analysis, we identified 6 approaches used by HCPs to manage hard-to-interpret talk[2]. We present these in turn below, before reflecting on the potential wider consequences of these approaches for patient care.

1)   The use of other-initiated repair

As we noted at the outset, in ordinary conversation repair is treated as a priority activity (Schegloff, 1979) so that shared understanding, or intersubjectivity, can be restored. Extract 1 below shows an example of direct other-initiated repair by the HCP. This extract comes from an encounter where an advanced nurse practitioner is exploring the reason for the patient's symptoms through questions and a simultaneous examination, and where the patient has a very quiet voice.

```
Extract 1.
141_218:
158  HCP:     are you ↑eating and ↑drinking mu:ch?
159           (1.0)
160  PAT:     °°a↑bout ↑av'rage°°
161           (0.6)
162  HCP:     sorry,
163  PAT:     °↑av'ra:ge,°
164           (0.6)
165  HCP:     ↑average,
```

When speakers initiate repair, they may use repair initiation forms which locate the source of the trouble (the repairable) in the prior turn, or they can treat the whole of the prior turn as problematic in some way, e.g. 'Pardon' or 'Sorry'. The latter are known as 'open' class Next Turn Repair Initiators (Schegloff et al 1977; Drew, 1997) In this extract, following the patient's quiet utterance at line 160, the HCP in Line 162 initiates repair with an open class repair initiator 'sorry'. This works to prompt the patient to repeat her prior utterance at 163 with a clearer and shorter formulation. The HCP shows she has understood with her repetition in Line 165, which is confirmatory rather than checking in its intonation.

In this example, then, the repair sequence fixes the trouble in understanding successfully, in a way that is typical of mundane interaction. The 'trouble', in this instance, turns out to be a straightforward one where it is only the HCP's initial hearing that prevents understanding (as opposed to an utterance which is heard but cannot be understood). However, in our dataset this was one of a very few examples of a clearly successful overt repair sequence initiated by the HCP following trouble in understanding the PLWD's talk. When direct and open other-initiated repair was attempted in this way in our dataset, it generally did not work to achieve clearly identified or displayed mutual understanding, but led instead to further exposure of the interactional trouble. Extract 2 is an example of this.

In this encounter a staff nurse has been checking the patient's blood sugars, and the extract begins as the nurse is reading the result on her monitor and explicitly announcing completion of the activity.

```
Extract 2:
136_207
81  HCP:  the:re we ↑go:
82    (1.6)
83  HCP:  all sorted.
84    (0.4)
85  HCP:  ↑got what we needed
86    (3.6)
```

10

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87  PAT:    °°I don't know what you're doin°°
88  HCP:    par↑do:::n?
89    (4.2)
90  HCP:   what did you say ↑dar↑↑li:n'?
91    (2.2)
92  PAT:    °°(I don't know)°°
93  HCP:    you don't ↑kno:w
94    (4.2)
95  HCP:    we'll do something this afternoon:n shall ↑we?
```

Here, following a succession of turns by the HCP to which there is no response from the PLWD (lines 81-86), at line 87 the PLWD initiates some talk which is very quiet and hard to hear (it is hearable to the research team, after repeated listening using headphones, as 'I don't know what you're doing'). The HCP is not looking at the PLWD's face as this utterance is produced, and recognises that she has missed something that has been said, as we see at line 89 in her open class repair initiator 'pardon?' After a long pause of over 4 seconds in which the PLWD does not respond to the 'pardon', the HCP tries again at line 90- this time specifying more literally 'what did you say'- with some orientation to the sensitivity of this request displayed in her use of the term of endearment 'darling'. After a further delay of 2.2 seconds the patient then replies very quietly at line 92 'I don't know', which is apparently hearable by the HCP and is repeated at line 93. It is possible that this is a partial repetition of the orginal utterance in line 87, though the intonation pattern suggests it is a complete turn; however it does not resolve the issue of the HCP's understanding of the original utterance. After a long pause in which the patient offers no further clarification, the nurse initiates a topic shift which foreshadows the closing of this interaction for now.

As Extract 2 shows, the use of overt repair, and of commonly used open class repair initiators like 'pardon', do not always work to fix a problem with understanding in this setting. This is likely linked to the fact that in contexts beyond a simple lack of hearing, open repair initiators are used where the repairable item "does not appear to connect referentially with the prior turn and so appears to be topically disconnected, or where the repairable turn does connect topically but is somehow inappropriate or inapposite" (Drew 1997: 98). An open class repair initiator conveys that the difficulty affects the whole previous turn, rather than locating it specifically. Since the recipient does not specify the difficulty, they leave it to the speaker to identify it; this property leads Schegloff et al (1977) to identify them the 'weakest' type of next turn repair initiator. Drawing on Wilkinson and Antaki (2013)'s overview of atypical interaction, we suggest that PLWD may not always be able to repair the problem when prompted by HCPs, because a) they have to first identify the problem and b) even if they do so successfully they may not be able to provide a successful repair, as a result of their memory or communication

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difficulties. On the few occasions in our data where this kind of direct repair is used and works to resolve a lack of shared understanding, it is with patients whose issue is with quiet speech (as in Extract 1), rather than speech which is hard-to-interpret for other reasons. More commonly in our data, these open class repair initiators resulted in prolonged and unsuccessful clarification attempts, as in Extract 2. This then raises the question: is initiating repair in this context worth the delay in progressivity, or worth the potential highlighting of trouble in the PLWD's talk and therefore drawing attention to their lack of full competency?

Jefferson (2017), in her analysis of errors and corrections in ordinary talk, notes the range of resources participants can use in an interaction to put things right without 'doing correcting'. Our analysis now turns to the practices HCPs in this setting use other than other-initiated repair. What these approaches have in common is hard-to-interpret talk being dealt with as if no trouble has occurred, with HCPs passing over the potential trouble source. We identified 5 ways in which they did this: the use of non committal utterances such as minimal acknowledgements/continuers; repetition of part of a PLWD's utterance; responding to the emotional tone of an utterance; closing the current topic and shifting to another; and treating the talk as if it were relevant to the task at hand[1].

2) Use of non-committal responses

Despite difficulties in achieving understanding, HCPs may still encourage PLWD to keep talking. One way they do this is through the use of minimal responses which may be verbal continuers (words or sounds such as 'mmm' or 'yeah') or non-verbal actions (such as nodding, maintaining eye contact, and smiling). Both of these work to pass over the opportunity for the HCP to take a more extended turn. One advantage of the use of these approaches in this setting is that they can be used in the absence of full (or even any) understanding of what a PLWD is saying. They can act to affirm the PLWD's contribution and enable them to continue as a partner in the interaction regardless of this. However, since these minimal acknowledgements only assert rather than demonstrate understanding (see Goldberg, 1975; Author reference f), if they are used repeatedly then actual understanding can be called into question. This is what happens in Extract 3 below. In this extract a speech and language therapist is talking to a patient following an attempt to get him to drink, but her minimal acknowledgements of his hard-to-interpret talk lead to interactional difficulties.

Extract 3:
122-220:
```
305   PAT:     (?)
307   HCP:   o::kay
308   PAT:     if ↑you were to put ↑that, (0.8) i:n (?)
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309    HCP:    ↑yea::h,
310    PAT:       (?)
311            (0.6)   ((HCP nodding))
312    PAT:    d'you know what I'm ↑talking  abou::t,
313    HCP:    not really
314             (3.2)
314            okay (0.4) I think I'm gonna leave you be
```

Here we see minimal acknowledgement tokens from the HCP at 307 (okay) 309 (yeah) and 311 (nodding), but the patient's direct question in line 312 makes clear that he has oriented to these as inadequate or unconvincing in some way. As a result, the HCP is forced to admit in line 313 that she has not really understood, but despite the subsequent 3.2 second pause, no further explanation of the talk is forthcoming. Antaki et al (2020) suggest that, in their data, the use of minimal responses where meaning is unclear may allow this meaning to become clear as the interaction continues. This is not the case in this instance, and Lindholm (2015) comments on the undesirability of noncommittal responses in interactions with PLWD, suggesting that they may not be respectful to the PLWD as a co-participant. However we note here that the HCP in this instance has to steer a course between *two* undesirable alternatives, given the potentially prolonged face-threat of other-initiated repair.

3) Repetition

In everyday conversations, repetition can perform a number of functions. As Kitzinger (2013) notes, a repetition can function as a repair initiation, by claiming the capacity to hear and reproduce an utterance, but not to understand it. In Antaki et al's (2020) gardening group interactions, repetitions were few and were used to problematise, for example repeating a word that appeared to be out of context with a questioning intonation. However, a partial repetition can be used to signal agreement with an utterance or perspective (e.g. by repeating an assessment such as 'That's good' (Heritage and Raymond 2005; Mikesell 2010; Petraki and Clark 2016). Specific to a dementia care setting, Lindholm (2015), drawing on the work of Moore and Davis (2002), suggests that caregivers can use repetition techniques to help people with dementia put their personal narratives together and communicate more effectively.

The use of partial repetition was common in our data as a means to continue the interaction without pausing for repair. In the following extract, a mental health nurse is meeting with the PLWD to try to establish the PLWD's capacity to contribute to decisions about where she might go to live after discharge from hospital. This patient uses fluent

speech but it is frequently hard to interpret and is not obviously relating to the questions that the HCP asks her. The extract starts with some shared laughter over a prior topic, and then the HCP shifts the topic back to the healthcare task at hand.

```
Extract 4
103_214:
106   HCP1: .hhh hh huh huh huh [.hhh] ↑Amy? (.) do you know where=
107   PAT:                      [hu:h]
108   HCP1: =you ↑a::re at the [moment?]
109   PAT:                     [I'm doing the (?)] (?)
110   HCP1: °mm° ((nods))
111   PAT:  be by my (si::de)
112   HCP1: right
113   PAT:  just so:: (so we can drul) (0.4) he's another
114         one what takes the windy-ay
115   HCP1: o::h is he
116            (1.4)
117   PAT:  this is ni::ce,
118   HCP1: >↑it's a< ↑nice ↑↑table isn't it yeah? (0.6) they keep
119         them nice and clea:n,
120   PAT:  they really ca::n't (↑wind) that up [can they?]
121   HCP1:                                     [huh huh  ] huh
122   PAT:  I mean all them fizzles >[I th]ink it< looks (0.4) ↑ni:::ce,
123   HCP1:                          [↑mm:] ((nodding))
124   HCP1: they ↑keep it ↑↑sma::rt ↑don't they? (.) ↑yeah
```

In this extract, during and following some hard to interpret talk at 109-111, we see the HCP producing minimal response tokens at line 110 (a very quiet 'mm' and head nod) and in line 112 ('right'). These minimal acknowledgement tokens invite the PLWD's talk to continue, but do not demonstrate understanding, which, as we have seen, can become problematic in the longer term. However, at line 115 the HCP takes the reference to 'he's' in line 113, repeating and reframing it within a well-fitted news receipt, 'oh is he'. This treats the prior talk as making sense to the HCP, and works to show interest in it. We also see the same process at work in the later talk about the table, beginning at line 117. Having used the PLWD's gaze to establish a possible referent for the adjective 'nice', the HCP talks about what is observably 'nice' about the table, and continues to collaborate on this topic. In this way she affiliates with the perspective that is being expressed, without problematising the content of the talk in terms of what can be 'wound up' here (line 120). She also 'no names' the problematic word 'fizzles' in line 122; Jefferson (2017:325, italics in original) proposes this as a way of declining to reject something, "a way of staying in the conversation…and at the same time *not making an issue* of the correctness/incorrectness of [the named item]".

Another example of the use of repetition comes in Extract 5 below, taken from an encounter where a nurse is shaving a PLWD.

Extract 5

114_225

```
76 HCP:  what else have you got today then,
77 PAT:  yea::h
78 HCP:  what are you up to today
79 PAT:  well (.) it's it's not gonna feelin (.) it's
          not gonna organise it
81 HCP:  he's not organised it alri::ght,
82 PAT:  anything I give him, (0.4) I might just as well
          chuck it in (0.4) an- and he will
84 HCP:  (1.0) yeah?
85 PAT:  yeah
86 HCP:  nea::rly done,
```

In this extract, the HCP initiates talk at lines 76 and 78 which does not relate directly to the shaving task, enquiring about the PLWD's day. The PLWD's response in line 79 is hard-to-interpret, and is not an obviously fitted response to the question. At line 81 the HCP repeats, with some grammatical reframing, part of the PLWD's talk, with a confirmatory/ agreeing 'alright'. Again, the talk here is treated as if it makes sense to the HCP, thus avoiding any need for repair.

Using the practice of repetition in this way allows the HCP to show that they have heard and understood something specific in the patient's talk. Since it is more committal than a minimal acknowledgment like 'hmm' or 'yeah', it demonstrates a stronger or more convincing engagement with the patient's talk. It also implies understanding, despite the fact that this may not be the case. In line with Lindholm's (2015) suggestion, it passes the conversational floor back to the person with dementia, allowing them to continue their turn. However, although this approach is common in our data, its obvious limitation is that it can only be used where the HCP has heard and understood something of what the PLWD has said.

4)   Responding to the emotional tone

Caregivers of people with dementia are sometimes advised to 'listen to the music' in their partner's talk (Chapman, 1994); in other words to listen for the overall emotional

tone or message underlying things that may be hard to interpret, and fit the response to that tone. In our dataset, there were a number of occasions on which HCPs were able to do this, even where the topic of the talk itself was unclear. Extract 6 below comes from an interaction with a PLWD who used a lot of fluent, distressed talk, with frequent internal contradictions/lack of coherence within the same turn at talk. The extract begins as a nurse is starting to check the plaster cast on the PLWD's arm, after some negotiation over removing the PLWD's cardigan.

Extract 6
117_227:

```
63   HCP:        the::re we a:r[e]
64   PAT:        [I] ↑think I'm going 'ome no::w (0.6) I'm
65               going ↑'ome ↑with ↑my ↑dad (0.6) huh (0.4) she's
66               something that she's my ↑dad looking after me (0.6) I'm
67               going 'ome no:(h)w
68   HCP:        are you missing your da:d
69   PAT:        ↑↑YEA:::H YEAH >↑huh ↑huh ↑huh ↑huh ↑huh< (0.6) I think
70               I'm going  'ome (0.4) I'm going 'ome to my ↑da:d (0.4)
                  huh
```


The hard-to-interpret talk, as is typical for this PLWD, does not appear to be responsive to the HCPs' prior talk at line 63 and comprises an extended turn. Since the PLWD's father is known to be deceased, the HCP knows that he cannot be taking the PLWD home. However, the HCP avoids challenging this and instead picks up on the emotional tone in association with the references to 'dad' from the repeated prior talk, formulating the ancillary question 'Are you missing your dad?'. Heritage (2011) defines these as questions which are uttered in situations where an emphatic response to a telling might be expected, but where instead the respondent produces a question somewhat related to the matter which also refocuses it. As Lindholm (2015) notes, ancillary questions can be usefully non-committal, generating distance from the conversational obligation set up by the previous utterance. In this instance, the ancillary question produced by the HCP is ambiguous as to whether the PLWD's father is alive or not, but it does respond to the expressed distress. Heritage (2011) argues that, in his data, the refocusing of an interaction that results from ancillary questioning can be used to avoid or decline empathic displays in contexts where such displays may be expected. However, our example here shows that ancillary questions can also be used to initiate moves towards empathy. The polarity of this question from the HCP offers the patient an obvious option

for an aligned response (Sacks, 1987), which forms her initial response in line 70 ('yeah yeah'), before she continues with further talk about her dad.

5) Closing one topic and shifting to the next

So far, all of the approaches we have considered have enabled the current topic of talk to be continued, even in the absence of full understanding from the HCP. However, in some instances, HCPs dealt with hard-to-interpret talk by closing the hard to understand topic, and shifting to the next. In everyday talk, topics are often changed through the following sequence (Jefferson 1993; Stokoe 2000):

1. Giving an acknowledgement token such as 'yeah' or 'alright'.
2. Pausing to allow for either person to add to the previous topic if they wish.
3. Using topic transition markers like 'so', 'o-kay' or the person's name to mark the shift to a new topic.

This structure can also be seen in our data, allowing HCPs to shift away from a hard-to-interpret utterance, and onto a different topic or task. Extract 7 below is a continuation of Extract 4 above, where we have previously seen the HCP using repetition.

Extract 7
103_214:

185	PAT:	juʔ ca- you know we had all them box vouchers
186	HCP:	hm mm,
187	PAT:	like tha:t (0.6) then you got your oranges and your
188		aisles (0.6) and ya bloody oranges (0.6) you don't think about
189		(0.4) keneejus
190	HCP:	no:: you do::n't (0.4) no you're ri::ght (0.6) so,
191	PAT:	not finished= somebody's banging
192	HCP:	no: (0.6) .hh so you know when you've been
193		dis ↑ cha::rged from the hospita:l, (0.6) we think that you
		might need help from some carers and some nurses

This extract, then, shows the utilisation of the structure described above. The HCP produces an acknowledgement in line 190, with the 'no' apparently fitted to the PLWD's talk in line 188 'you don't think about keneejus', so matching the PLWD's stance towards the problematic item. There is then a pause, followed by the topic shift marker 'so' (Bolden, 2006). The PLWD then produces a further hard-to-interpret utterance in line 191, and the HCP repeats the process by producing another acknowledgement fitted to the polarity in line 192, pausing, and then producing another 'so' before moving on to talk about discharge from hospital. The fact that this process is repeated here

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demonstrates the collaborative nature of topic shifting, and that, as in ordinary conversation, there is potential for PLWD to resist these shifts. However, we also note that, as in this example, topic shifts may be employed only after a HCP has attempted other approaches to managing hard-to-interpret talk but has failed to reach mutual understanding with the PLWD. We also observe this approach in our dataset where the PLWD is exhibiting distress, but attempts to establish the cause or to relieve the distress have failed. As we noted at the beginning of this paper, general communication tips recommend distraction tactics, or delaying an activity as possible responses in this kind of scenario. These tips treat distraction as an opportunity to take the focus away from a problematic behaviour or activity, for example by drawing attention to something that can be seen though a window or elsewhere in the room. However, in some healthcare contexts, re-orienting to a specific task (e.g. returning the focus to changing a dressing) in a timely fashion may be necessary in order to provide adequate care for a PLWD.

6)   Treating the talk as related to the task

On one occasion in our dataset, a HCP was able to treat the hard-to-interpret talk as if it were related to the task, by reframing the PLWD's talk into something that served the completion of the task. Extract 8 comes from an interaction between a staff nurse and a PLWD who is at risk of pressure sores unless she changes position, but has been expressing reluctance to stand up.

Extract 8:133_206:

```
39   HP:              ↑am ↑I ↑alright just to ↑stand you up (.)
40          just for a mo↑me::nt,
41   PT:    oh it er  ter depe::nds,
42          (0.6)
43   HP:    ↑it ↑all de↑pe::nds? (0.4) on ↑wha:t,
44   PT:    ho:w big it i:s, (0.4) how wi:de it i:s
45   HP:    ↑o::h (0.4) just standing ri:ght he:re
46   PT:    °e:::r° (0.4) well I don't  know til I'd sta::rt do I,
47   HP:    ↑shall ↑we give it a go:: then,
48          (0.4)
49   PT:    ah yeah but which, (0.8) (↑karvens are here)
50   HCP:   it's just gonna be right he:re
```

In this extract, following the HCP's permission seeking question in line 39, the PLWD produces a conditional response, 'it…depends'. In Line 43 the HCP pursues this for clarification of the condition, leading to the PLWD's utterance in line 44, 'how big it is, how wide it is'. In this instance, the HCP treats this as a question about the location for standing, using what Jefferson (2017) calls colligation. In Jefferson's definition, colligation entails tying together a wrong item and the item that puts it right, so the wrong item is added to by the right item, rather than discarded and replaced. The PLWD's utterance in line 46 suggests an acceptance of this colligation, with a focus on her ability to complete the activity. Following a proposal to 'give it a go' by the HCP there is a short pause in which the PLWD's movement begins to suggest standing, and then a subsequent question in line 49. Again, the HCP uses colligation to treat this as a question about location, and also 'no-names' (Jefferson, 2017) the problematic 'karvens' in this utterance. Following this, the patient does successfully stand.

As we have noted, this approach was unique in our dataset; this is likely to be because it is only available as an option in specific cases where the content of the PLWD's talk make it possible and relevant. It requires the HCP to interpret the talk as if it is about the task at hand, even though this may not in fact be the case. Further investigation of this approach would be needed in order to establish whether it is more generally successful in dealing with hard-to-interpret talk.

Conclusion

Despite the general interactional preference for self-repair, our data suggest PLWD are less likely to initiate this. This is in line with existing CA research in some other populations with atypical communication, where underlying impairments to language or cognition might make self repair difficult or the need for it less obvious (Wilkinson and Antaki 2013; Antaki et al 2020). Existing CA research in other contexts shows that other-initiated repair is potentially delicate and possibly face threatening, particularly if done repeatedly. In this specific context, direct other-initiated repair brings the additional difficulty that it will not necessarily be successful, leading to a greater likelihood of the need to repeat it. In the analysis presented here we have shown a number of ways in which HCPs manage hard- to- interpret talk without recourse to direct repair.

As we have seen, which of the approaches are available to HCPs depends on how much of the PLWD's talk is understandable, and whether it is possible to treat it as task-related. We would further argue that the approach which is appropriate in a particular

context is likely to depend on the purpose of the interaction. The use of minimal acknowledgements or partial repetition may, as we have seen, be time limited in their appropriate and effective usage because of the way they assert rather than demonstrate understanding, which may then be problematised by PLWD. However, these approaches may additionally work to maintain connectedness and inclusion where hard-to-interpret interactions are co-occurring with care tasks such as shaving, where the lack of shared understanding is not consequential to the progress of the task. In situations where a PLWD is distressed, however, reducing this distress will be the primary imperative, and so responding to the emotional tone is likely to be the most appropriate initial response. In situations where an urgent care task needs to be initiated and completed in a timely manner, topic shifts may become necessary to move the talk back to the task at hand, as shared understanding is necessary for task progressivity. In other words, while our analysis shows a range of approaches, which of these is likely to be most appropriate or effective will depend heavily on local context. Schegloff (1992:1138) describes how repair is "locally managed, locally adapted and recipient designed" and our analysis shows the skilled ways in which HCPs adapt to the local circumstances of these interactions.

It is also important to note that these are not independent approaches, and in our data more than one approach was commonly used in the same interaction. For example, as we saw in Extracts 4 and 7, HCPs might move to a topic shift only when other approaches had been unsuccessful in restoring shared understanding. Embodiment was a feature of all the approaches we identify, and more precise attention to multimodal conduct such as touch and gaze would undoubtedly deepen our analysis and is an important area for future research. Nevertheless, we argue that all the approaches identified here can be used in the service of providing care which supports the personhood of the PLWD, in the sense that avoiding highlighting a lack of shared understanding may do some of the work of 'supporting identity and inclusion' which the philosophy of Person Centred Dementia Care suggests is needed for the psychological well-being of the PLWD. We have noted that repetition and the use of continuers encourage a PLWD to continue to take their turn as speaker in an interaction, and maintain their role as an active participant. Additionally, we would argue that topic shifts in these contexts, which on initial inspection may seem to close down the talk of a PLWD, also serve to avoid the face threat of multiple unsuccessful attempts at repair, or a prolonged scenario where the source of distress remains unknown or not remediable. Perkins et al (1998) writing in the context of the specific language difficulties present in aphasia, suggest that not initiating repair can severely limit the ability of a person to actively contribute to the interaction or to influence the development of the topic and as

a consequence they are forced into a passive role. However, our data suggest that this observation does not transfer straightforwardly to a dementia context, where the underlying difficulties experienced encompass wider cognitive changes than just language. The work done by the HCPs in this data is perhaps better considered as 'scaffolding', in Koole and Elbers' (2014) sense of the term, where local interactional responsiveness is demonstrated through the HCPs' responses to observable prior displays of competence or trouble by the person they are interacting with. In this specific context then, we suggest that avoiding repair can additionally avoid the exposure of less-than-full-membership (Lindholm, 1998) of a PLWD in an interaction, and so promote their inclusion. Further, we suggest that our analysis provides an empirical demonstration of the fact that dementia care is highly skilled work (Handley et al, 2019). It illustrates how these skills can be described and specified, so that these specifics can be conveyed and incorporated into the recommendations made for communication with PLWD. However, and building on similar research in different contexts (Antaki et al, 2020) we caution against using a simple, prescriptive approach: as is clear from the data we have presented, a significant component of this skill comes from appropriately selecting from a range of interactional possibilities, in a constrained and often unpredictable context, where there is also a (healthcare) job to be done.

Footnotes:

1. It was not our intention to recruit only White patients to the study, and this did not represent the diversity of the wards. There were a number of patients on the wards who spoke English as an additional language. However, they were communicating wholly or partly in their first languages, and this 'language reversion' is a recognised phenomenon in dementia care. It is a limitation that we were not able to include these patients, and our ongoing research aims to address this lack of diversity.
2. The use of embodied cues was found in combination with all these approaches (e.g. following a patient's gaze to try to identify a referent, observing a patient's posture to assess where pain or distress might have a physical cause). However, since it was present across all other approaches we have not considered it a distinct category in our data.

References:

Alzheimer's Society (2014) Dementia UK Update. London: Alzheimer's Society
https://www.alzheimers.org.uk/sites/default/files/migrate/downloads/dementia_uk_update.pdf

Alzheimer's Society (2009). Report. Counting the Costs. Caring for people with dementia on hospital wards. London: Alzheimer's Society

Antaki, C., Chinn, D., Walton, C., Finlay, W. and Sempik, J. (2015) To initiate repair or not? Coping with difficulties in the talk of adults with intellectual disabilities, *Clinical Linguistics and Phonetics,* 34 (10-11): 957-76.

Antaki, C. & Wilkinson, R. (2013) Conversation analysis and the study of atypical populations. In: J. Sidnell & T. Stivers (Eds.) Handbook of Conversation Analysis. Oxford: Blackwell-Wiley. (Pp. 533-550)

Bolden, G.B. (2006) Little Words That Matter: Discourse Markers ''So'' and ''Oh'' and the Doing of Other-Attentiveness in Social Interaction Journal of Communication 56 (2006) 661–688

Chapman, A. (1994) Never mind the words, listen to the music: a 20 hour training programme for staff of new community based projects for people with dementia, University of Stirling Dementia Services Development Centre, http://hdl.handle.net/10068/396852

Dewing, J. and Dijk, S. (2016) What is the current state of care for older people with dementia in general hospitals? A literature review. Dementia 15(1): pp. 106–124

Dooley et al (2015) Dooley, J., Bailey, C. and McCabe, R. (2015) Communication in healthcare interactions in dementia: a systematic review of observational studies. *International Psychogeriatrics* 27(8): pp.1277-1300

Drew, P. (1997), "'Open' class repair initiators in response to sequential sources of troubles in conversation", *Journal of Pragmatics*, vol. 28, no. 1, pp. 69–101

Drew, P., Walker, T., and Ogden, R. (2013), "Self-repair and action construction", *In Conversational Repair and Human Understanding (Jack Sidnell, Makoto Hayashi, Geoffrey Raymond, eds.)*, Cambridge, U.K., Cambridge University Press, pp. 71–94.

Goffman, E. (1955) On face-work: an analysis of ritual elements in social interaction, *Psychiatry: Interpersonal and Biological Processes*, 18 (3): 213-31.

Goldberg, J.A. (1975) A system for transfer of instructions in natural settings. Semiotica, vol. 14(3): pp. 269–296

Griffiths, A., Knight, A., Harwood, R.H. and Gladman J.R.F. (2014) Preparation to care for confused older patients in general hospitals: a study of UK health professionals. Age and Ageing 43: pp.521-527

Handley, M., Bunn, F. and Goodman, C. (2019) Supporting general hospital staff to provide dementia sensitive care: A realist evaluation. International Journal of Nursing Studies 96 :61–71

Have, P. ten 2007 Doing Conversation Analysis: A Practical Guide. 2nd edn. Thousand Oaks, CA: Sage Publications Ltd. https://doi.org/10.4135/9781849208895

Heritage, J. (2011). Territories of knowledge, territories of experience: Emphatic moments in interaction. In T. Stivers, L. Mondada, & J. Steensig (Eds.), *The morality of knowledge in conversation* (pp. 159–183). Cambridge, England: Cambridge University Press.

John Heritage, Douglas W. Maynard, eds., (2006), "Communication in Medical Care: Interaction between Primary Care Physicians and Patients", Cambridge, Cambridge University Press.

Heritage, J. and Raymond, G. (2005), "The terms of agreement: indexing epistemic authority and subordination in assessment sequences", Social Psychology Quarterly, vol. 68 (1): 15–38.

Hertogh, C.M.P.M., Anne Mei The, B., Miesen, B.M.L. & Eefsting, JA. Truth telling and truthfulness in the care for patients with advanced dementia: an ethnographic study in Dutch nursing homes Social Science & Medicine 59 (2004) 1685–1693

Hopper, T. (2007) The ICF and Dementia. Seminars in Speech and Language 28: pp.273–282 DOI 10.1055/s-2007-986524

Houghton, C., Murphy, K., Brooker, D. and Casey, D. (2016) Healthcare staffs' experiences and perceptions of caring for people with dementia in the acute setting: Qualitative evidence synthesis. International Journal of Nursing Studies 61: pp.104–116.

James, I.A., Wood-Mitchell, A.J., Waterworth, A.M., Mackenzie, L.E. and Cunningham, J. (2006) Lying to people with dementia: developing ethical guidelines for care settings. International Journal Of Geriatric Psychiatry 21: 800–801.

James, I.A. (2015) The use of CBT in dementia care: a rationale for Communication and Interaction Therapy (CAIT) and therapeutic lies. *Cogn Behav Ther* 2015; 8: e10.

Jefferson G. (2017) Remarks on non-correction in conversation. Pp. 313-329 in P. Drew, J. Bergmann and G. Jefferson (eds) Repairing the Broken Surface of Talk: Managing Problems in Speaking, Hearing, and Understanding in Conversation. Oxford: Oxford University Press.

Jefferson, G. (1993) Caveat speaker: Preliminary notes on recipient topic-shift implicature , *Research on Language and Social Interaction,* 26 (1): pp.1-30.

Kindell, J., Keady, J., Sage, K. and Wilkinson, R. (2017) Everyday conversation in dementia: a review of the literature to inform research and practice. International Journal of Language and Communication Disorders 52(4): pp.392–406

Kirtley, A. and Williamson, T. (2016) What is truth? An inquiry about truth and lying in dementia care. London: Mental Health Foundation.

Kitzinger, C. (2013) Repair. In Stivers, S. and Sidnell, J. (eds.), The handbook of conversation analysis. Malden, MA: Wiley-Blackwell, pp. 229-256

Koole, T. and Elbers, E. (2014) Responsiveness in teacher explanations: A conversation analytical perspective on scaffolding. Linguistics and Education 26: pp. 57–69

Lindholm, C. (2015) Parallel Realities: The Interactional Management of Confabulation in Dementia Care Encounters, Research on Language and Social Interaction, 48:2, 176-199, DOI: 10.1080/08351813.2015.1025502

Lindholm, C. and Wray, A. (2011) Proverbs and formulaic sequences in the language of elderly people with dementia. Dementia 10(4): pp. 603–623

Lindley, L. M. (2016) Competence in everyday interaction: A conversation analytic approach to repetition, confusion and getting things done when living with dementia. PhD thesis, University of Leeds.

The London School of Economics and Political Science (2019) Projections of older people with dementia and costs of dementia care in the UK 2019-2040. London:CPEC

Mikesell, L. (2010) Repetitional responses in frontotemporal dementia discourse: Asserting agency or demonstrating confusion? Discourse Studies 12(4): pp. 465–500

Moore, L. A., & Davis, B. (2002). Quilting narrative: Using repetition techniques to help elderly communicators. *Geriatric Nursing,* 23: pp. 262-266.

Perkins, L., Whitworth, A. and Lesser, R. (1998). Conversing in dementia: a conversation analytic approach. *Journal of Neurolinguistics*, 11 (1-2): pp. 33-53.

Petraki, E.and Clark. S. (2016) Affiliating through agreements: the context of antenatal screening, *Australian Journal of Linguistics*, 36(2) 273-389.

Raymond. G. (2003) Grammar and social organization: Yes/No interrogatives and the structure of responding. *American Sociological Review* 68, 939-967.

Sacks, H. (1987) On the Preferences for Agreement and Contiguity in Sequences in Conversation. In Graham Button and John R. E. Lee (eds.), *Talk and Social Organisation* 54-69. Clevedon, England: Multilingual Matters

Seaman, A, and Stone, A. (2015) Little White Lies: Interrogating the (Un)acceptability of Deception in the Context of Dementia**,** *Qualitative Health Research*, 27(1):60-73

Schegloff, E. (1992). Repair After Next Turn: The Last Structurally Provided Defense of Intersubjectivity in Conversation. American Journal of Sociology, 97(5), 1295-1345.

Schegloff, E. A. (1988). Goffman and the Analysis of Conversation. In P. Drew & A. Wootton (Eds.) Erving Goffman: Exploring the Interaction Order (pp. 89-135). Cambridge: Polity Press.

Schegloff, E. (1979), "The relevance of repair to syntax-for-conversation". In T. Givón (ed) *Syntax and Semantics, Vol. 12: Discourse and Syntax,* New York, Academic Press, pp. 261–286.

Schegloff, E.A., Jefferson, G. and Sacks, H. (1977) The preference for self-correction in the organization of repair. *Language* 53: 361

Stokoe, E.H. (2000) Constructing Topicality in University Students' Small-group Discussion: A Conversation Analytic Approach. Language and Education 14(3): 184-203