Critical evaluation of the impact of low technology communication aids on the quality of evidence elicited from witnesses with a Learning Disability in Registered Intermediary-mediated Achieving Best Evidence police investigative interviews

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ABSTRACT

This thesis critically evaluates the manner in which low technology communication aids interactionally impact the quality of evidence elicited from witnesses with a Learning Disability (WLD) in real Achieving Best Evidence (ABE) police investigative interviews, when communication between interviewing officers (IO) and WLDs is facilitated by a Registered Intermediary (RI)¹. Quality in this context is used in relation to the Youth Justice and Criminal Evidence Act (1999), which describes quality in terms of completeness, coherence and accuracy. Conversation Analysis (CA) (Mondada 2013; Sacks et al 1974) was used to analyse multimodality interactions in video recordings of seven real ABE police interviews, the institutional goal of which was to elicit investigation relevant information.

The thesis identifies participants' orientations to aids as tools to augment or replace talk to enable WLDs to communicate their evidence using the visuospatial modality. It examines the sequential phases during which aids are recruited during multimodality interaction: retrospectively, in episodes of aided repair, but more efficiently, they are recruited prospectively in Planned Intervention by circumventing a conversation breakdown. Aids are recruited by the participants for different interactional purposes, enabling WLDs to communicate complex evidentially relevant information that they would typically find challenging. The manner in which RIs and IOs construct aided requests for information and their unconventional modified discursive practices are analysed. An RI's position as a language broker during these atypical interactions demonstrates the emergence of a previously undescribed production role. Finally, results from a survey of 21 RIs and 21 IOs is presented, which corroborate the findings of the analysis.

This study extends the body of research on multiparty multimodality embodied interactions. To the best of the researcher's knowledge, it is the first known interactional analysis of low technology aid recruitment in a legal context in atypical interactions. It presents several theoretical and workplace implications,

¹ An intermediary in the Criminal Justice System is a communication specialist trained to work in legal contexts and relates to Section 29 of the Youth Justice and Criminal Evidence Act (UK Parliament 1999).

demonstrates how such aids enable WLDs to be given a 'voice', improves the quality of their evidence and makes innovative recommendations for further research.

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1 INTRODUCTION

This research is the first known Conversation Analytical study of the manner in which low technology communication aids are interactionally used with witnesses with a Learning Disability (WLD) in real Achieving Best Evidence police investigative interviews of sexual or physical assault, and where requests for information and their responses are facilitated by a Registered Intermediary (RI) recruiting low technology communication aids. The role of the RI will be explained in detail later (section 1.1.2), but for the purpose of understanding the context at this point in the thesis, RIs are communication specialists with additional legal training who facilitate effective communication between vulnerable witnesses and legal professionals in a criminal investigation in England and Wales, at the investigative stage and/or at trial (Ministry of Justice 2011), and whose legal role is enacted in an Act of Parliament (UK Parliament 1999).

This chapter starts in (1.1) with an overview of the methodological framework. In section (1.2), the context, set-up, typical structure of an Achieving Best Evidence (ABE) Interview and the definition of the term LD used in this thesis are described. Special Measures are introduced in section (1.3) in the context of the Youth Justice and Criminal Evidence Act (UK Parliament 1999), focusing on its relationship with quality of evidence, Sections 29: Intermediaries, S30: Communication Aids and S27: Pre-recorded video evidence-in-chief. The overarching research question is introduced in (1.4), dividing it into the 3 sub-questions which this thesis examines. Finally, section (1.5) outlines the thesis structure.

1.1 Overview of methodological framework

The data consisted of video recordings of seven real police investigative interviews of WLDs being interviewed by the police in relation to a real serious physical or sexual assault. All interviews involved low technology communication aids which were recruited in interview by an RI. Conversation Analysis (CA) was selected as the most appropriate tool to analyse the data and answer the research

questions detailed in section 1.4. CA is a highly sophisticated analytical framework that enables the micro-analysis of communication as it sequentially evolves, the manner in which it is shaped by preceding turns of talk and how that communication then impacts following talk. Turns at talk are typically arranged in pairs adjacent to each other, where the first part of a pair expects an interactionally preferred second part of that pair e.g., question-answer, instruction-compliance (Sacks et al 1974). Interaction is ordered, created, and maintained by participants (Schegloff and Sacks 1973). Every utterance is considered meaningful and contextually relevant, shaping the next utterance, and shaped by the previous (Heritage 1984a). In so doing, a participant displays his or her own unique understanding of the prior turn (Sacks et al 1974). CA provides answers to the question "why that now?" (Candlin et al 2017) and thereby seeks to understand the relevance of each successive action as it sequentially appears from the perspective of a conversation partner.

CA has been used to study interviews (Button 1992; Drew and Heritage 1992; Grant et al 2016; Heath 1986; Heritage 1985, 2003, 2004, 2006, 2010; Heritage and Greatbatch 1991; Robinson and Stivers 2001; ten Have 1991, 2007a; Wadensjö 1998) since the 1980s and more recently, atypical interactions (Antaki 2013; Antaki and Kent 2012; Antaki and Webb 2019; Antaki et al 2007, 2008; Auer et al 2020; Bloch 2011; Bloch and Beeke 2008; Bloch and Wilkinson 2009, 2011; Carlsson et al 2014; Finlay and Antaki 2012; Griffiths et al 2015; Rae and Ramey 2020; Wilkinson et al 2020).

Over the last three decades, it has been used to research multimodality interactions involving everyday objects used as aids to communication (Bezemer et al 2019; Day and Wagner 2014; Deppermann 2013; Ekström and Lindwall 2014; Ekström et al 2009; Goodwin 2000, 2003, 2011; Heath and Luff 1992; Higginbotham and Engelke 2013; Lindwall and Ekström 2012; Mazeland 2019a; Mikkola and Lehtinen 2014; Mondada 2011a, 2012, 20141, 2014c, 2014d; Nevile et al 2014; Norén et al 2013; Rauniomaa and Keisanen 2012; Richardson and Stokoe 2014; Scott and Purves 1996; Streeck 1996; Streeck et al 2011; Suchman 1987; Weilenmann and Lymer 2014).

As Mondada (2019: 48) argues, CA is "not exclusively focussed on language but rather on human action - for which language is one powerful resource among others". CA has become an accepted methodology in studying communication aid-mediated atypical communication (Aaltonen et al 2014; Bloch and Wilkinson 2004, 2013; Clarke and Wilkinson 2007, 2013; Clarke et al 2017; Higginbotham and Engelke 2013; Reitz and Dalemans 2016; Wilkinson et al 2011) and following a critical evaluation of all options, CA was identified as the most effective analytical tool to analyse the data here, namely aid-mediated police interviews.

Although, the conversation analytic examination of the police interview data formed the core of analysis, an electronic survey was also conducted with 21 RIs and 21 IOs in order to situate the empirical results of the analyses in the context of practitioner perceptions.

The police interviews used in these data follow current interviewing guidelines detailed in *Achieving Best Evidence in Criminal Proceedings* (Ministry of Justice 2011), hence referred to as ABE interviews, the context, set-up and structure of which are introduced next.

1.2 Achieving Best Evidence (ABE) interviews

1.2.1 Context of ABE interviews

The format and principles of ABE interviews were derived from the principles of the older PEACE model of investigative interviewing that was introduced in the 1990s by the Home Office. The acronym PEACE stands for the recommended interview stages i.e., Planning and Preparation, Engage and Explain, Account, Closure and Evaluate, (College of Policing 2013-2019) and marked a turning point in policing by "replacement of the term 'interrogation' with 'investigative interviewing'" (Milne and Bull 2003: 112). Prior to the introduction of PEACE, interviewing of all individuals (witnesses as well as suspects) focussed on eliciting a confession, therefore the manner in which the information was elicited did not differ. The introduction of the PEACE model progressed the view that interviewing of witnesses was more about establishing the facts in the case, resulting in a shift

in practice to what Shuy (1998) termed investigative interview talk. Here, IOs started seeking answers from interviewees in a non-threatening, unchallenging, and non-accusatory manner, instead of engaging them in more challenging interrogations, which started to be reserved for interviewees suspected of committing an offence. ABE guidance was borne out of a need to incorporate more recent legislation (section 1.3) into interviewing practice while retaining the essence of the PEACE model.

To establish the facts in an investigation, the ABE guidance states that the goal of an investigative interview is to "ascertain the witness's account of the alleged event(s) and any other information that would assist the investigation" (Ministry of Justice 2011: 8), that is "acceptable to the court" (Ministry of Justice 2011: 68) and provided in their own words. ABE interviews are designed based on an IO's "points to prove" their case (Ministry of Justice 2011: 49). These points to prove are specific investigation relevant points that IOs need to obtain and verify, based on the definitions included in the Act of Parliament that are relevant to that specific case (personal communication, Smith 2018, National Crime Agency) and are therefore institutionally relevant.

1.2.2 ABE Interview set-up

ABE interviews are typically conducted in a two-room interview suite. The interviewing officer and WLD sit separately on comfortable seating. At times, an interview supporter can provide emotional support to a witness but is not permitted to talk on the witness's behalf or provide investigation relevant information. Fixed microphones and cameras on the walls of the interview room are connected to recording equipment located in the recording room. A supporting officer is present in the recording room and their role is to monitor the equipment, take notes and suggest relevant questions at the end of the main interview that the IO may have omitted during the interview. At times, a second IO is present in the interview room but that is uncommon.

1.2.3 Structure of an ABE interview

ABE interviewing guidance recommends IOs structurally organise their interviews in to 4 phases which are establishing rapport, initiating, and supporting a free narrative account, questioning and closure. Each phase consists of designated and identified goals that IOs and witnesses orient to as the interview progresses, with IOs exercising their deontic rights and responsibilities in setting the agenda and topics during interview. It is the second and third phases that directly relate to eliciting investigation relevant evidence. They are the phases that typically incorporate the use of aids in RI-mediated aided interviews and are therefore relevant to this thesis and the focus of this research.

The 2nd phase of the interview (free narrative account) is required to be "uninterrupted and elicited by means of an open-ended invitation" (Ministry of Justice 2011: 74). Typically, IOs allow a witness to tell their account freely and in as much detail as possible with minimal interruptions. This phase sets the context for the 3rd phase of the interview (Questioning). IOs are advised to divide this phase into manageable topics, to use appropriate questioning techniques to elicit case-specific information until all relevant detail is obtained and to avoid topic-hopping (Ministry of Justice 2011: 76). Although in other legal situations such as in cross examination or suspect interviews, questions can serve multiple non information-seeking functions (Heritage 2003; Heffer 2005), here, they are overwhelmingly used to elicit an investigation relevant answer, thereby equalising an "epistemic asymmetry" (Stivers and Rossano 2010: 13) between an IO and a witness.

However, eliciting relevant answers to questions depends on the manner in which they are constructed (Lee 2014). Although ABE guidance recommends IOs make adjustments to interviewing practice in relation to witnesses with vulnerabilities there are no specific recommendations on how to amend questions in order to cater for the specific linguistic requirements of such witnesses. In our scenario, this guidance, therefore, presupposes that IOs possess LD specific knowledge as well as knowledge of the impact of LD on communication, which would then enable them to modify their interviewing practices to suit the communication and interaction requirements of atypically communicating WLDs.

1.2.4 Definition of LD

Although there is considerable variation in the definition of the term 'Learning Disability' (American Psychiatric Association 2013; Department of Health 2001; World Health Organisation 2016), it is the term familiar to the policing institution and is therefore used in this research. It is also the preferred term used by the United Kingdom Department of Health, which defines LD in its white paper *Valuing People* (Department of Health 2001: 14) as:

- 1. A significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence), with
- 2. A reduced ability to cope independently (impaired social functioning)
- 3. Which started before adulthood, with a lasting effect on development.

1.3 Special Measures and the Youth Justice and Criminal Evidence Act

It had long been recognised that vulnerable witnesses and especially those with an LD were particularly compromised in legal settings such as police investigative interviews by virtue of their specific interaction and communication disabilities (Gudjonsson 1988, 1990; Atkinson 1992; Clare and Gudjonsson 1993) which tended to result in their limited credibility in court (Perlman et al 1994). These inequalities were brought to the attention of United Kingdom government ministers in the form of the Sanders report (1996) which found that individuals with an LD were not always identified as such by the police, resulting in IOs using inappropriate interviewing techniques. As the interview participant with the epistemic knowledge of an allegation, it is essential that WLDs are facilitated to produce their account in a manner that is best suited to their abilities. An interdepartmental Working Group published recommendations in Speaking up for Justice (Home Office 1998) which resulted in the enactment of the Youth Justice and Criminal Evidence Act (UK Parliament 1999). The Act introduced several Special Measures, a range of legal provisions that could be used to facilitate the gathering and giving of evidence, to assist vulnerable witnesses including those

with an LD to improve the quality of their evidence by communicating to the best of their ability in criminal proceedings.

1.3.1 Special Measures and Quality of evidence

Although quality of evidence is the focus of Special Measures, the Act does not offer a definition of this term apart from stating that it includes "completeness, coherence (that is, the ability when giving evidence to give answers which address the questions asked and which can be understood both individually and collectively) and accuracy" (UK Parliament 1999: Part II, Chapter 1 Section 16(5)), and this expansion is repeated in interviewing guidance (Ministry of Justice 2011: 5) and the Registered Intermediary Procedural Guidance (Ministry of Justice 2015: 4). There is no further known clarification in relation to 'quality of evidence' (personal communication 20-12-15 David Wurtzel and Penny Cooper, City Law School, London, trainers for the Witness Intermediary Scheme 2007-2017). How quality is analysed here is detailed in chapter 3 Methodology.

The vulnerable witnesses that this Act made provision for were defined under S16 and covered witnesses:

- 1. Under 17 (now 18, as per Section 98 of the Coroners and Justice Act 2009) at the time of the hearing
- 2. Whose quality of evidence is diminished by reason of:
 - i. Mental disorder (within the description of the 1983 Mental Health Act)
 - ii. Having significant impairment of intelligence and social functioning
 - iii. Having a physical disability or disorder (that affects communication)

This thesis relates to adult WLDs, which fall into category 2ii.

Three of the eight Special Measures that vulnerable witnesses are eligible to access inform the focus of this study and are summarised here².

 $^{^{2}}$ The other 5 Special Measures are Court related and hence not applicable to this thesis.

1.3.2 Special Measure Section 29: Intermediaries

Intermediaries, in their role of legally-situated communication specialists, enable a communicatively impaired WLD to avail equal access to the Justice System by facilitating the production of quality evidence, during a police investigative interview as well as at trial (UK Parliament 1999). An intermediary is a specialist through training and unique knowledge of a witness, who can assist a WLD experiencing difficulty understanding questions or expressing their evidence coherently, to communicate effectively without interfering with the substance of questions and answers put to WLDs (UK Parliament 1999; Cooper and Mattison 2017).

Currently, the Ministry of Justice (England and Wales)³ is responsible for recruiting, training, and accrediting suitably trained intermediaries, after which successful candidates are registered on their national database and referred to as Registered Intermediaries (RI) (The Advocate's Gateway 2015a). All RIs will have been previously practising in a communication related field such as speech and language therapy, psychology, or special needs teaching for several years and have specialist knowledge of assessment and management based on their professional background. They are then trained to apply that professional knowledge and skill within the specialised context and structure of the Criminal Justice System. The National Crime Agency (NCA) maintains a list of RIs on behalf of the Ministry of Justice. Police Forces and the Crown Prosecution Service contact the NCA to source an appropriate RI. The NCA then 'matches' the communication needs of a particular WLD with the specialist skills of a suitable RI, within a set geographic area and is largely successful in meeting the demand. Between January 2013 and December 2019, for example, the NCA received 18,452 requests for RIs working in the area of LD and it was able to match approximately 94% of all requests received (personal email communication, January 2020, National Crime Agency).

³ The Department of Justice is responsible for the jurisdiction of a similar scheme Northern Ireland. Scotland follows a separate legal system which is not covered by the Youth Justice and Criminal Evidence Act 1999. Intermediaries are not part of the Scottish legal system.

The role of an RI consists of several interaction and communication-based tasks and responsibilities (Ministry of Justice: 2015) and the ones relevant to this thesis are to:

- 1. Assess a witness' functional communication skills and analyse their attention and listening skills, understanding and communication (verbal and nonverbal).
- 2. Plan the ABE interview with the IO, including proposing the use of specific aids, considering the information to be elicited and based on the linguistic abilities of an individual witness, and advising on the manner in which aids should be introduced and used.
- 3. Assist with in-interview facilitation of communication, including repairing communication breakdowns between an IO and a witness. This includes proposing, creating and managing the use of communication aids to repair those breakdowns, based on the in-interview assessment of the interactional requirements of the moment.

RIs are the interview participants with the epistemic knowledge of atypical communication, bringing their expert knowledge of specific communication disorders and management thereof. In order to accomplish their role, RIs recruit a range of verbal and non-verbal resources, such as communication aids (National Crime Agency 2002-2017). These aids are now introduced.

1.3.3 Special Measure Section 30: Communication aids

Section 30 of the Youth Justice and Criminal Evidence Act states:

'... a special measures direction may provide for the witness, while giving evidence (whether by testimony in court or otherwise), to be provided with such device as the court considers appropriate with a view to enabling questions or answers to be communicated to or by the witness despite any disability or disorder or other impairment which the witness has or suffers from.' (UK Parliament 1999: S30).

The adversarial system has always implemented a tradition of orality (Ewin 2015; Roberts and Zuckerman 2010) and as a result, those with limited verbal skills have been overlooked (Home Office 1998). The legal addition of this Special Measure allowing a "device" (UK Parliament 1999: Section 30) for augmenting or replacing spoken communication, technically extends the adversarial system to include WLDs who are not verbal.

A device referred to in the Act is typically a communication aid. Communication aids are broadly classified in to *unaided systems*, i.e. systems that only utilise the communicator's body, and *aided* systems, which require the use of equipment or tools that are separate from the communicator's body which in turn are further subdivided largely into high technology and low technology aids (Beukelman and Mirenda 1998; Drager et al 2010, Griffiths et al 2019, Hazell and Cockerill 2001; The Advocate's Gateway 2015b). High technology aids are electronic devices involving the use of a battery and are typically computer based aids which generate synthesised speech (Hazell and Cockerill 2001; Drager et al 2010) and can also include IPads. When used by atypically communicating individuals, they have been found to be overwhelmingly used as answers to questions by typically communicating partners (Clarke and Wilkinson 2007). They are highly sophisticated devices, enabling the user to communicate complex linguistic concepts and are mainly used by those with a physical disability whose cognitive functioning is relatively uncompromised (Beukelman and Mirenda 1998) and are therefore outside the scope of this research which focusses on WLDs, whose linguistic skills are dependent on their cognitive functioning. Many high-tech devices therefore are beyond their linguistic competence and would not be used in legal settings (such as an investigative interview) with them⁴.

Low technology devices are light in weight, relatively inexpensive, portable as well as durable, and since they do not depend on battery life, they provide a relatively uninterrupted means of communication (Drager et al 2010). Selection of them is dependent on purpose, iconicity, vocabulary needed and the user's access requirements (Glennen 1997; Beukelman and Mirenda 1998; Drager et al 2010). They are typically selected bearing in mind the individual communication requirements of a specific user and even when commercially available software is used, selection of vocabulary is witness-dependent. In legal settings, low

⁴ Since this research involves low technology communication aid use only, all references to aids in the analyses always refer to low technology devices, irrespective of whether explicitly stated or not.

technology aids in interview consist of devices ranging from a pen to write or draw with, creating maps and timelines, to paper cut-outs of gingerbread figures and coloured pictures. They also include everyday objects not typically considered low technology aids such as physical objects e.g. wooden artist mannequins, toy bricks, miniature furniture (National Crime Agency 2002-2017; The Advocate's Gateway 2015b). Additionally, commercially available software is also used to create black and white or coloured pictures, used singly or in combination with each other, thereby incorporating multiple modalities, and depending on the linguistic requirements of a given interaction.

RIs use their epistemic knowledge of atypical communication and specifically knowledge of the communication requirements of a specific, assessed WLD, to make witness-specific recommendations that in their professional opinion, are suitable to the precise interaction and communication needs of that witness. What is linguistically appropriate for one witness may not suit the requirements of another. Whether a particular witness understands a visually presented representation of a concept better than a spoken word, is dependent on an RI's assessment of that witness' linguistic abilities, the semiotic properties of that aid, in-interview explanations and other linguistic variables. See Appendix 5 Fig 1.1 which gives examples of some of the types of aids used in interviews⁵. Row A symbolises requests for a *break*, the *toilet*, and a *hot drink* respectively. In row B, the first aid relates to enabling a user to express whether they know or remember the answer to a question asked and the other two aids relate to expressing how a user feels about a topic.

See Appendix 5 Fig 1.2 for examples of 3 types of timelines⁶: pictorial, graphic and a timeline consisting of different coloured post-it notes are used to represent events and the dates on which they allegedly occurred. Hand drawn graphically constructed line drawings such as timelines are typically created in the moment and in Fig 1.2, drawing was used in combination with writing. Fig 1.3 gives

⁵ These examples do not necessarily relate to those used in the analysis. The ones that are relevant to this thesis are explicated in the analysis chapters.

⁶ Image 1.2b relate to the data analysed in this thesis and was created by the author based on field notes taken at the time of data collection but was not an actual police exhibit.

examples of objects designed for other purposes such as artists' wooden mannequins and miniature play furniture, that serve the function of low technology aids and are used in ABE interviews. These images have been extracted from the author's personal collection of aids. Interview participants draw attention to a specific aspect of a low technology aid's characteristics (pictorial, graphic or object-based), depending on the interactional requirements of the moment, and is accomplished through the physical actions of pointing, showing, strategically placing, manipulating and positioning them in the shared interactional space between the participants.

Although pictures, writing and everyday objects can be used in typical interaction, the recruitment of pictorial, graphic or object-based resources as low technology aids in this research is distinct and separate from everyday use by typically communicating interactants, such as medical note writing in doctor-patient interviews, or use of a computer to retrieve a patient's medical notes. In this research such low technology aids are crucial to message transfer and augment or completely replace spoken communication in answering interview questions.

1.3.4 Special Measure Section 27: Pre-recorded video evidence in chief

The third Special Measure relevant to this thesis relates to Section 27 (UK Parliament 1999). When vulnerable witnesses make a criminal allegation in England and Wales, they are typically video-interviewed by the police, the purpose of which is dual-focused. Besides serving as an information-seeking resource, video recorded⁷ interviews are played in court during trial as a witness' evidence-in-chief as per S27 (Plotnikoff and Woolfson 2015), thus eliminating the need for the witness to retell their account in court again. Therefore it is essential that a recording is of good quality as it is the "key element underpinning a prosecution" (HMCPSI and HMIC 2014: 4) and that a WLD's account comes across as being complete, coherent and factually accurate (Hansard 1999). As a witness' evidence-in-chief, it is crucial that aids are clearly visible on camera, so that all embodied actions involving them are captured by the video recording. Aids used

⁷ Forces are now moving towards digitally recording ABE interviews.

during the ABE interview are typically discussed at a Ground Rules Hearing that precedes the trial (and thus also precedes viewing of a visually recorded ABE interview) and their use is retrospectively agreed by the Judge at that time. In England and Wales, the jury is responsible for assessing the evidence and deciding on a suspect's guilt and it is a video recording of a witness' ABE interview that they view as part of their decision-making process⁸.

1.4 Research questions

Although communication aids were foregrounded as a Special Measure (Section 30) more than three decades ago, Plotnikoff and Woolfson (2019) find that in practice many IOs are still reluctant to use aids in investigative interviewing, in spite of official interviewing guidance (Ministry of Justice 2011; The Advocate's Gateway 2015b) recommending their use. They found that IOs have suggested physical objects such as communication aids do not have the same credibility as spoken words when ABE interviews are played in court (Plotnikoff and Woolfson 2015), although studies evidencing this view are under reported.

Even though the RI community anecdotally believes in their efficacy in enhancing the quality of a WLD's evidence (Registered Intermediary Online forum, 01-04-16), to the best of this researcher's knowledge, no interactional empirical studies related to their effectiveness in real investigative interviews currently exist and it is hoped that the findings here will highlight that aids can be adopted to enhance the quality of evidence in a robust and non-leading manner.

The researcher trained as a speech and language therapist and worked with individuals with an LD in special schools and community settings for about 30 years. She is also an RI herself, specialising in working with the same clinical demographic, and is an accredited RI trainer for the Ministry of Justice. She is consequently highly mindful of the legal constraints faced by IOs, as well as the linguistic abilities of WLDs and therefore has an arguably more sensitive emic

⁸ Therefore drawings and hand created aids such as timelines are submitted to court as exhibits in a trial. Mannequins and other object-based aids themselves are not submitted. The Court considers viewing them on a video recording as sufficient.

understanding of police interview practices. She considers that this insider positioning is advantageous as it affords her a greater awareness of the tension between empirical research and evidence based practice. With those sentiments in mind, the researcher therefore embarked upon a study aimed at examining the impact communication aids have on the quality of evidence in ABE interviews.

The overarching research question (RQ) that this thesis sets out to examine is:

What is the impact of low technology communication aids on the quality of evidence in RI-mediated ABE investigative interviews with witnesses with an LD?

This main RQ was subdivided in to three further sub-questions as follows:

- 1. How are low technology aids oriented to by interview participants (IO, WLD and RI) in eliciting information and what are the sequential interactional phases during which they are recruited in aided episodes of interaction (repair and planned intervention)?
- 2. What is the contribution of aid-mediated actions involved in pre-request and request-response sequences in eliciting information?
- 3. In what manner do participants negotiate their production roles with the aim of eliciting information and what are the outcomes of using aids in this process?

The analysis posits that the use of aids enables WLDs to *show* what happened, an opportunity previously denied in the verbal adversarial system in which they lacked the speech ability *to say* what happened, and as a result, impacts the quality of evidence elicited.

The thesis structure is presented next.

1.5 Structure of thesis

The thesis has been divided into 7 chapters and is structured in the following manner.

Chapter 2 reviews the literature on ABE interview guidance in the context of institutional interactions. It reviews the typical format for eliciting information i.e. through question-answer sequences, but also presents a review of instructions, as well as the supporting actions of proposals and announcements. It reviews repair with a focus on Other-initiated repair, as well as pre-sequence expansions. The relevant literature on the specific communication and interactional difficulties experienced by WLDs is reviewed and situates RIs as language brokers within multiparty interactions in atypical communication. It appraises low technology communication aid use with atypical communicators, as well as everyday objects used as aids to augment or replace spoken talk. Chapter 2 also reviews embodied physical actions associated with object use.

Chapter 3 is concerned with the methodology used in this research. It discusses the need for a qualitative approach and transferability to real life contexts and situations, and describes researcher positionality relevant to this research. A critical evaluation of Conversation Analysis (Sacks et al 1974) as the main analytical framework used to analyse multimodality interactions (Depperman 2013; Mondada 2013) is presented, together with reasons for employing a corroborating police and RI survey. This chapter also presents details of the data, consent, collection methods, the ethics and the analytical procedure involved in this research.

Chapters 4-6 cover the analyses. Specifically, chapter 4 examines participants' orientations to aids as augmentative or alternative devices in eliciting investigation relevant information using a different modality. It examines the role of aids as specificity increasing devices, exemplified in the context of Schegloff's (1979) strength ordering typology relating to Other-initiated repair. Aided interaction is analysed in two situations: Firstly, in repair, after an actual conversation breakdown and secondly, in episodes of planned intervention (PI), where aid use has been agreed by the RI and IO prior to commencing the interview in order to pre-empt a possible upcoming breakdown. It challenges the accepted preference for Self-initiated Self-repair (Schegloff et al 1977) and identifies the trajectory involved in aided interaction, thereby answering the first sub-question.

Chapter 5 analyses the manner in which aided pre-request sequences contribute to eliciting information in interactionally preparing a WLD for an upcoming request for information. It then examines aid use in request-response sequences and identifies instruction-giving as a unique practice that participants engaged in during the co-production of complex new information, thus answering the 2nd sub-question.

Chapter 6 answers the 3rd sub-question by examining the production roles assumed by participants in the context of Goffman's Participation Framework (1981) and proposes a new production role adopted by RIs specifically in the RI-mediated interview context. This chapter also differentiates the RI role as a language broker, as being different to that of an interpreting role. It examines the strengths and weaknesses of aids in the interviewing context and explicates the types of investigation relevant information elicitable via aids. Chapter 6 then presents corroborating findings from the survey. Finally, aids and the link with quality of information is presented.

In chapter 7, a thorough discussion of the findings is presented. This chapter answers the overall RQ by demonstrating that low technology communication aids when introduced and managed appropriately by RIs in investigative interviews, improve the quality of a WLD's evidence by facilitating the co-production of investigation relevant information. It highlights the theoretical contributions to the literature as well as its practical implications in the workplace. Finally, it makes suggestions for future research.

2 LITERATURE REVIEW

The last chapter introduced the aims of the study and set out the questions this research answers using multimodality analysis from a Conversation Analysis (CA) perspective as a methodological framework. It then presented the impetus for this research and laid out the structure of the thesis.

This chapter begins by (2.1) critically reviewing and evaluating relevant literature of current investigative interviewing guidance (Ministry of Justice 2011) as institutional talk. It reviews questioning, instruction giving as well as the supporting actions of proposing and announcing. Next (2.2) focuses on research on repair, the natural ordering of repair initiating devices in Other-initiated repair, and pre-sequence expansions that interactionally prepare participants for an upcoming adjacency pair. Section (2.3) consists of a review of the LD literature, including linguistic and extra linguistic factors influencing investigative interviewing. After that, (2.4) reviews language brokering and production roles, (2.5) appraises the research on communication aids, objects, and signs and finally (2.6) summarises the chapter highlighting a gap in the literature to be explored here.

2.1 Investigative interviewing and institutional interaction

This section commences by reviewing ABE guidance on investigative interviewing situating it within the genre of institutional interactions.

2.1.1 ABE interviews as institutional talk

The aim of an ABE interview is to establish shared knowledge of an allegation. While WLDs are knowledgeable about the allegation and have "epistemics of experience" (Heritage 2013), they might not have the verbal skills to say what has happened and thus, an RI is employed to facilitate the exchange of information as they hold epistemic knowledge of atypical communication, having "epistemics of expertise" (Heritage 2014: 392).

On an institutional level, the goal of ABE interviews is eliciting new evidence "to ascertain the witness' account of the alleged event(s) and any other information that would assist the investigation" (Ministry of Justice 2011: 10). Establishing common ground (Stalnaker 2002) or "common knowledge" (Sacks 1992: 23) is essential so that any presuppositions one party has about something is grounded in the other person's orientation to that event. This is established through shared attention (Enfield 2006) but primarily through unfolding turns of talk (Sacks 1992). Common ground contributes to establishing and maintaining intersubjectivity i.e. an awareness of the interactional needs of a listener relating to understanding a verbal message (Haselow 2012; Heasman and Gillespie 2019).

IOs are the institutional representatives of the policing institution in ABE interviews. The institutional responsibilities of agenda setting, topic initiation and interview progression (ten Have 1991; Drew and Heritage 1992; Heritage 2004, 2006) are reflected in ABE guidelines (2011) and the procedures for interviewing vulnerable witnesses is discussed in sections 3.69-3.79 of this manual. Typically, a "pre-established system of turn allocation" (ten Have 2007: 175) exists in institutional interactions and this necessitates turns being organised in an "explicit and predictable way" (Heritage 2006: 5), so that participants can "initiate, develop and conclude the business they have together" (Heritage 2004: 230). IOs exercise their deontic rights to manage the interview topics by taking the lead in initiating requests for information. They determine the agenda and the topics to be discussed, resulting in participation asymmetries typical of all institutional interactions (Heritage 2004).

Progressing an RI-mediated aided interview therefore involves the interplay between IOs' deontic rights to progress through investigation relevant topics and RIs' epistemic responsibilities of facilitating this elicitation of information effectively.

2.1.2 Questioning in Investigative interviewing

The epistemic difference between a WLD who knows about an allegation and an "unknowing recipient" (Goodwin 1979: 100) i.e. an IO, is typically equalised by

asking questions in investigative interviews (Cederborg and Lamb 2008; Krahenbuhl and Blades 2006; Milne and Bull 2001, 2003; Milne and Bull 2006; Oxburgh et al 2010). The preferred response to a question is typically an answer, but a question can sometimes result in a non-preferred answer: a no answer situation or a response that is "unexpected" (Levinson 1983: 336) because it is topically inconsistent.

Reasons for non-preferred answers in investigative interviewing are manifold. Firstly, Fisher and Geiselman (1992) claim that eliciting non-preferred answers to questions is to a large extent dependent on IOs using incorrect or inappropriate methods to retrieve WLDs' accounts of an allegation, resulting in irrelevant or non-salient information being elicited. Inappropriate interviewing techniques with vulnerable witnesses are well documented (e.g. Cedarborg and Lamb 2008; Krähenbühl and Blades 2006; Milne and Bull 2001, 2006).

One of the earliest studies on the impact of question type on the amount of detail and accuracy of those details produced relates to laboratory studies of children's responses by Dent and Stephenson (1979). Although not directly relating to WLDs, results obtained with children have been quoted and used successively in studies with other vulnerable groups of witnesses, because of the common features of linguistic immaturity involved in both these types of vulnerable witness groups. Dent and Stephenson (1979) played a film to 40 ten and eleven year old children. The film involved a man who was seen stealing a parcel from a car, who was then chased and finally caught. The children were asked a 'general question', which they defined as allowing an unrestrictive answer (or what is referred to in current ABE guidance as an open question) e.g., "Tell me as much as you can about what the man in the white mac looked like." The children were also asked what they called specific questions, i.e., questions that elicited a restrictive answer (or what the current ABE guidance refers to as closed questions) e.g. "What colour hair did the man in the white mac have?" The researchers found that the specific questions elicited more inaccurate answers than general questions, prompting Dent and Stephenson (1979) to conclude that specific questions were least desirable and asking general questions was preferable. Other researchers built on

this initial laboratory research on the influence of question types on accuracy of evidence and their real-life research is detailed next.

Lamb et al (1996) analysed 22 real audio interviews of child victims between the ages of 5-11 years being interviewed in Hebrew about a range of sexual allegations. The children were questioned by youth investigators, whose question types were compared in terms of the length of answers they yielded, and the richness of information provided. Lamb et al (1996) considered answers to be rich when they included greater number of details and used the term 'invitational' questions to define questions that permitted responses to be descriptive and nonrestrictive in their composition, which could be compared to 'open questions' in current ABE guidelines. They found that children produced longer and more detailed responses when elicited via invitational questions. Children's answers to questions that restricted their answer to a specific point i.e., closed questions, yielded less detailed information. Lamb et al (1996) however did acknowledge that they were unable to comment on the accuracy of the children's answers since this study related to real, unscripted events, the fidelity of which remained unknown to these researchers. Nevertheless, they concluded that invitational or open questions were generally superior to closed questions and this is reflected in current ABE guidance.

These findings were corroborated by Sternberg et al (1996), who analysed 45 video recorded interviews of children between the ages of 4-12 years of age alleging sexual abuse. They found that open questions yielded answers that were four times longer and three times more detailed (or richer) than closed specific questions, thereby considering open questions desirable. Griffiths and Milne (2006) considered open questions such as "Describe everything that happened at the shop", to be productive in eliciting an account from a WLD and they too advocated their use in investigative interviews. More recently, although not directly referring to them as open questions, Cedarborg and Lamb (2008) found effective questioning techniques to be those where the interviewer framed questions with the purpose of inviting the interviewee to provide information. According to them, questions that prompt free recall such as "Tell me...", "explain..." and "describe to me...") fulfil this function.

Drawing from the research literature, the current ABE guidance for practitioners encourages interviewers to use open questions which states that open questions are the "best kind of question from the point of view of information gathering" (Ministry of Justice 2011: 78). The guidance urges IOs to predominantly use such questions in interview and examples that it recommends to elicit good quality evidence are Cedarborg and Lamb's (2008) questions starting with "tell me about...", "explain..." or "describe...". It proposes that open questions minimise the risk of IOs imposing their views on the interviewee. IOs are guided that specific closed questions should be used "if necessary" (2011: 78). Examples of closed questions are those such as "wh" questions i.e. "where did you go?" It warns that closed questions could cause a WLD to "become passive, decrease concentration and can therefore result in less recall" (2011:78). The guidance considers forced choice questions (e.g. "would you like tea or coffee?") a last resort but concedes that vulnerable witnesses may only be able to respond to forced choice questions, and in those circumstances IOs are advised to seek the expertise of an interview adviser (2011:80).

Following publication of that practitioner guidance, and after completion of the primary analyses reported here, Grant et al (2016) suggested effective questions were those that considered the function and structure of questions. They proposed that IOs should consider questions as being either topic/account initiation questions (e.g. "Tell me about....", "describe to me..." or statements used as topic initiators) or topic/account facilitating questions (e.g. "whereabouts are you from?", "sorry...wanted to go where?", "so how does he get paid?").

However, these current practitioner and research recommendations presuppose that IOs are able to make judgements in relation to their own linguistic competencies, for example when deciding whether to recruit an RI or instead to rely on their own abilities. They also assume IOs can make in-the-moment decisions regarding their own ability to modify the format of their questions, as well as how to manage questioning with WLDs, whose communication abilities vary even within a single interview, if they choose not to recruit an RI⁹. Advocating IOs to independently adopt and modify their in-interview interactions disregards the complexity of language, the different ways of formulating questions to elicit information and IOs' own interviewing competencies and experience of working with atypical populations such as those with an LD, (a matter returned to in section 2.3).

Furthermore, the tradition that evidence typically needs to be oral (Ewin 2015; Roberts and Zuckerman 2010) and IOs' expectations that a witness' responses to questions need to be spoken (Fisher and Geiselman 2010) is problematic. This expectation that WLDs should be using speech to comprehensively and articulately respond to questions is often challenging (Milne and Bull 2003) and although current investigative interviewing guidelines mentions using communication aids (Ministry of Justice 2011), there is little clear guidance on *how* to use them in order to facilitate a non-spoken account.

Recognising these potential difficulties, the College of Policing (2013-2019) stresses the importance of appointing an RI who it recommends, would "make the difference between vulnerable witnesses giving their best evidence, or not communicating at all". This work here highlights the important role of communication aids in minimising those variables when managed by a communication specialist such as an RI.

Although questioning is by far the most common method of eliciting information and determining an account (Tracy and Robles 2009), the literature demonstrates that there are other interactional practices namely instructions (Curl and Drew 2008; Craven and Potter 2010; Lindwall and Ekström 2012; DeStefani and Gazin 2014), proposals (Houtkoop 1987a, b; Zhang Waring 2012; Couper-Kuhlen 2014) and announcements (Stevanovic and Peräkylä 2012) that can accomplish the task of getting someone to "do" something, which in ABE interviews may be used to provide information directly or to elicit some action which will ultimately provide

⁹ Although IOs *can* apply for an RI as per the Youth Justice and Criminal Evidence Act, there is no requirement that they *must* do so on all occasions.

the desired information. The relevant literature on each of these interactional practices will be reviewed in turn, starting with instructions.

2.1.3 Requests for action: Instructions

Requests for action are typically delivered in the form of instructions and involve one participant getting another participant to accomplish something (Curl and Drew 2008) aimed towards a projected purposeful outcome (Amerine and Bilmes 1988; Lindwall and Ekström 2012). They can be delivered to shape behaviour as when used with children (Craven and Potter 2010; Gerhardt 2019) or when used with adults in pedagogical settings, they teach a particular technical or manual skill (Lindwall and Ekström 2012; DeStefani and Gazin 2014; Ekström and Lindwall 2014; Mondada 2014a). In ABE interviews IOs and RIs may use instructions to accomplish their overarching goal of eliciting evidence.

In everyday interactions, instructions may be made implicitly or explicitly (Gill et al 2001), and may be spoken or embodied. Embodied instructions involve the use of bodily movements or conduct (Nevile 2015; Rae and Ramey 2020), such as pointing to an object with a surgical instrument to instruct some surgical action (Mondada 2014c, d), or a physical action such as extending a cupped hand towards some sweets to instruct that they are given to the instructor (Rauniomaa and Keisanen 2012). Instruction giving in aid-mediated ABE interviews typically focuses on how WLDs are expected to use aids. Object-related instruction giving is typically indexical (Day and Wagner 2014; Mondada 2014a, d) and relies on the situation to attain significance (Suchman 1987). When recipients are instructed to do something with an object, those Instructions first work on clarifying the affordances of that object and are then followed by an explanation on how the indexed object is expected to be manipulated (Mondada 2014a). This same pattern would be expected when instructions are used in aid-mediated ABE interviews.

The preferred next action after an instruction is compliance (Lindwall and Ekström 2012; Schegloff 2007a), which also indicates that it has been understood (Mondada 2014a). However, as instructions are typically directly worded (Curl and Drew 2008), ordinarily, they could be viewed as a threat to one's face i.e.

"something that is emotionally invested, and that can be lost, maintained or enhanced and must be constantly attended to in interaction" (Brown and Levinson 1987: 61). According to Brown and Levinson, a positive face refers to the wants of an individual to be liked, approved, and respected by others whereas a negative face relates to an individual's desire not to be restricted or imposed upon by others. However individuals typically consider other factors such as "in the interests of urgency or efficiency" (Brown and Levinson 1987: 69), which in this context is the joint goal of evidence elicitation, something that benefits all present in the interview. Therefore instructions are less likely to be viewed as threats to the face of a WLD. Giving instructions baldly and without redress, would be expected in this social context.

Additionally, research of workplace and pedagogical settings demonstrates that epistemic knowledge is often considered critical in terms of how participants in institutional settings orient to a directly worded instruction. Epistemics is referred to as "the knowledge claims that interactants assert, contest and defend in and through turns-at-talk and sequences of interaction" (Heritage 2014: 370) and in the case of conversations with linguistically less competent speakers, may relate to either "specialized professional subject matter or linguistic knowledge" (Bolden 2013: 331). When an instructor with greater epistemic access to a knowledge base issues an instruction, even if it is directly worded such as in school and professional laboratory settings (Amerine and Bilmes 1988; Lynch and Jordan 1995), teaching cooking skills (Mondada 2014a), surgery (Mondada 2011a, 2014c, d), driving lessons (DeStefani and Gazin 2014), craft education (Ekström and Lindwall 2014) and teaching reading (Weeks 1985), instructees treat instruction giving as non-face threatening and compliance is high. Rls have a greater knowledge base of atypical communication as well as of the specific linguistic and interactional requirements of linguistically less competent WLDs. The wording of instructions delivered in ABE interviews would likely determine compliance and care would need to be given in order to avoid acquiescence (cf section 2.3.2).

A further key factor in the wording of instructions relates to an instructee's understanding and perception of the projected outcome (Ekström et al 2009), which in the case of ABE interviews is the elicitation of information. In their research on interactions during craft education with adult learners, Ekström and Lindwall (2014) and Ekström et al (2009) demonstrate the manner in which both instructees as well as instructors cooperatively orient towards the institutional goal of learning (and teaching) a skill, with students (instructees) orienting to the jointly agreed projected outcome and not simply in relation to the teachers' superior epistemic knowledge or social role. The projected outcome of evidence elicitation in ABE interviews is a result of the interplay between experientially more knowledgeable WLDs, expertise-related more knowledgeable RIs, and IOs who are deontically responsible for eliciting that outcome.

In addition to epistemic asymmetry and projected outcomes determining compliance in institutional settings, the individuals' orientations towards their entitlement have also been found to be a factor in the wording of instructions (Curl and Drew 2008). In their research on adult-adult telephone calls to a doctor's surgery, Curl and Drew (2008) find that patients who believed they were entitled to having their request for action complied with, used more direct wording and were perceived as instructing. They do not orient to whether it is practically possible for the recipient (doctors) to comply with their instructions, nor do they consider factors outside the recipients' control that might prevent instructions from being complied with and compliance was taken for granted. Conversely, they find that when interlocutors orient to themselves as being less entitled in relation to their conversation partner's contingencies, less direct wording such as "I wonder" is used (Curl and Drew 2008). In ABE interviews, IOs are institutionally entitled to progress through their investigation relevant points to prove their case, whereas RIs institutional role relates to facilitating this progression effectively, recommending aids if needed, and being entitled to carry out practices relating to this responsibility.

DeStefani and Gazin (2014) extend that research on instruction giving to interactions where immediate action is required, in their work on driving lessons of adult instructors with adult instructees. They find that in addition to instructors' high entitlement, the urgency for immediate action is another factor that impact the wording of instructions. Driving instructors exclude verbs from their directly worded instructions in situations that demand urgent and immediate

action, depending on the local spatiotemporal contingencies available to the instructor at a given moment in the interaction. Directly worded cryptic instructions, occasionally as embodied actions alone, are also observed by Mondada (2014d) in the operating theatre, where immediacy of instructed action is crucial in avoiding perilous action. The need for immediacy of action experienced in an ABE context is not related to a physical threat but instead, the risk of inattention and loss of intersubjectivity is high with WLDs.

In the context of WLDs, Antaki and Kent (2012) examine instruction giving by linguistically competent care staff to linguistically and socially less competent individuals with an LD and find that most instructions delivered by members of staff to the care home residents are directly worded. Staff members use "bald imperatives" with them (Antaki and Kent 2012: 179), telling residents what to do (rather than asking) and their directly worded instructions demonstrate their orientation towards their high entitlement to do so, as has been found elsewhere with linguistically less competent intructees such as children (Craven and Potter 2010).

When compliance with initial less directly worded requests does not occur, Antaki and Kent (2012) find that instructions are upgraded to more direct instructions. They give an example of a less directly worded initial request, "d'y want a spoon, (.5) (>get a<) spoon: (.) to serve it" being upgraded to a more directly worded instruction, "you need to get a spoon, don't yer". In other words, instructors (i.e. care home staff) are the individuals with more epistemic and/or deontic knowledge about something and instructions are issued to less knowledgeable residents to change a behaviour or physical action. In RI-mediated ABE interviews, an IO as an institutional representative, is deontically more knowledgeable about interviewing and other institutional processes, whereas a witness is not. Although WLDs are knowledgeable about the experience in relation to their own allegation, RIs hold expertise in atypical communication and the resources to elicit communication.

Linguistically less competent individuals with an LD are used to being directed by linguistically more competent individuals (Antaki et al 2007). In a case study of

interactions between an adult with an LD and a member of staff at a residential care home, even when the institutional goal is to seek the resident's views, Antaki et al (2007) found that it is the linguistically more competent member of staff who directs the resident on the content of what he should say, based on her views of responses that are institutionally more appropriate. It is the staff member, and not the individual with an LD who controls the interaction, the outcome of the interaction and when that interaction can be concluded, even though the institutional goal of the interaction necessitates a greater level of control from the resident and a more balanced interactional symmetry between the two. Therefore, although ABE guidance recommends open questions in order to elicit a WLD's views in relation to an allegation, the study by Antaki et al (2007) suggests that WLDs could perceive them to be unusual if used in interview.

A second important finding asserted by Antaki et al (2007) relates to care staff orienting to the residents with LD as individuals who need coaching and are unable to form independent judgements about matters. Although they acknowledge that their research relates to a single case study, the researchers note that the conversational forms that are used in their data are similar to those documented in LD research elsewhere and they therefore believe that such practices are a "general phenomenon" (Antaki et al 2007: 13). This would be problematic in an interview context where a witness' independently produced answer is of utmost importance and steps need to be taken to mitigate this problem such as employing an RI and using communication aids to facilitate their communication.

Besides issuing instructions, another way of getting another to 'do' something is via proposing a future action.

2.1.4 Requests for action: Proposals

Proposals place a greater measure of recipient control on recipients' contingencies than instructions. Although Houtkoop (1987b) did not directly address this distinction, she demonstrates an awareness of the blurring between instruction giving and proposing in her work on adult-adult proposal-making. She describes proposals as requests formulated indirectly, being collaborative actions that a speaker offers to "solicit his recipient to agree to carry out the activity

under discussion" (Houtkoop 1987b: 1). Proposals are attempts to identify a joint future action (Stevanovic 2012) and in doing so, the agents and beneficiaries of that future action are Self and Other (Couper-Kuhlen 2014). Soliciting a proposal therefore indexes a more co-operatively agreed "egalitarian" (2014: 630) social relation than requests or instructions, a view reiterated in other work (Stevanovic and Peräkylä 2012; Kendrick and Drew 2016). As the participant with expertise of atypical communication and the manner in which effective communication can be facilitated, RIs would need to propose aids in a manner that is cooperatively accomplished, bearing in mind their role in jointly co-producing a WLD's evidence.

Stevanovic (2012) asserts that it is essential for the recipient of a proposal to have joint access (physical or otherwise) to the subject of the proposal so that they can agree on the proposed action. In her study of pastors and cantors agreeing hymns for a future church service, physical access to a hymn book was essential in talking about and agreeing which hymn would be sung in a later church service and a written note was made (embodied action). In the ABE interviews then, all participants need access to the proposed aids. RIs would typically propose aids and the other participants would indicate in some way, their agreement and commitment to their use.

Stivers and Sidnell (2016) discuss the way future action is proposed and suggest that it is dependent on the participants' prior actions up to that point of proposalmaking. For example, they assert that when a completely new activity is proposed, the disjunctiveness of the proposal with respect to the prior activity, is often marked with physical alterations such as changes in body position. They find that body positioning and embodied movements such as physically entering another's line of sight and ongoing activity space, is a further way in which proposal making can be accomplished. It is anticipated that similar actions are observed in aided interactions when proposals to use specific aids are made, since recruiting aids involves a change between a primarily speech-based system to a visuo-spatial modality; this is analysed in chapter 4. The interactionally preferred resulting action after a proposal is typically agreement however agreeing proposed actions depends on the inter-relationship between interlocutors' epistemic (Heritage and Raymond 2005) and deontic rights (Stevanovic and Peräkylä 2012). Since proposal-making involves cooperation between the proposer and the proposee, it necessarily involves negotiation between the rights and responsibilities of both parties (Lindström and Weatherall 2015) and similar actions would be expected in aided interviews. This is explored in chapter 6.

Stevanovic and Peräkylä (2012) conducted a study on how proposers demonstrate their orientation to their recipients' contingencies (i.e. each other's deontic and epistemic rights and responsibilities), in their talk in proposal making. In their study on video recorded institutional interactions between pastors and cantors where negotiations on hymns and music were in progress, they find that proposers use the conditional tense, "could" and "would", thus demonstrating their awareness of the recipient's deontic rights and consequently their right to reject the proposal. Another way in which this tension between speakers' and recipients' rights is demonstrated is by constructing proposals as a thought, e.g. "I was thinking that" (Stevanovic: 2013). In the ABE interview context, it is anticipated that IOs' and RIs' wording will also demonstrate an awareness of the other's deontic and epistemic rights i.e. each other's contingencies, bearing in mind the different deontic and epistemic responsibilities of IOs and RIs respectively. Although RIs propose aids, those proposals need to be balanced with IOs' deontic rights in terms of progressing their points to prove and selecting topics for future talk. This balance has to be negotiated across the interview. Such negotiation is explored in chapter 6.

This tension between deontic and epistemic statuses is prevalent in interactions between individuals with an LD and their typically communicating co-participants (Antaki and Webb 2019). In their work on decision making in proposing future action, they found that institutional representatives can often claim their superior epistemic knowledge of an individual's developmental functioning and exclude them from talk regarding deciding future action (Antaki and Webb 2019). In the ABE interview context, it would be important to ascertain ways in which information about a WLD's experiential knowledge of an allegation can be elicited completely and coherently, and that their voice is not excluded in this process.

Similarly, Lindström and Weatherall (2015) studied doctor-patient interactions in Sweden and New Zealand where doctors' deontic rights to propose treatment plans based on their epistemic responsibility (based on expert knowledge) to provide effective treatment were initially resisted by patients exerting their own deontic rights to choose their own treatment and their own epistemic (experiential) knowledge of their illnesses. In recognition of this, doctors' and patients' epistemic and deontic rights were recalibrated and negotiated throughout their interactions in order to agree a future treatment plan. When agreement could not be achieved, doctors acquiesced to patients' deontic rights and epistemic knowledge about themselves.

Therefore, in RI-mediated aided interviews where the goal is to elicit experiential knowledge from WLDs, excluding them from interview talk would be counterproductive to accomplishing the institutional goal and would be evidentially incompatible. As they are knowledgeable in matters relating to their own experiences of the allegations, it is institutionally impossible to exclude them from talk related to the allegation and participants would need to work jointly to include WLDs in progressing an interview and accomplishing the projected outcome. However, the manner in which the roles of ABE interview participants are negotiated may be affected by the presence of aids and is analysed in chapter 6.

2.1.5 Announcements

In contrast with the equally symmetric status between a proposer and its recipient, in announcement-making, participants orient to the announcer as having a higher deontic status (Stevanovic and Peräkylä 2012) or epistemic bias (Stivers and Rossano 2010) than the recipient. In announcements (or assertions as Stevanovic and Peräkylä use interchangeably, but referred to in this thesis as announcements), the speaker presents future facts declaring an upcoming event, such as an upcoming investigation relevant topic. Announcements enable the doing of something as non-negotiable (Stevanovic and Peräkylä 2012).

Recipients of talk where one speaker asserts their higher deontic or epistemic status can either acquiesce or resist Other's efforts to influence a future course of joint action. In all events, announcers treat the information they announce as being relevant and consequential to the recipient (Stivers and Rossano 2010). When announcements are reacted to by compliance or by agreement tokens that suggest compliance (e.g. "ok"), recipients are maintaining the asymmetrical distribution of deontic rights (Stevanovic and Peräkylä 2012). In other words, recipients orient to the person making the announcement as having a right to do so. In RI-mediated aided WLD interviews, it is expected that WLDs would typically comply with IOs' deontic right to announce and determine the topic, as would RIs. Similarly, it is anticipated that IOs would typically orient to RIs' epistemic responsibility to propose aids however if and when a mismatch occurs between each other's epistemic and deontic rights and responsibilities, interactional work would need to be carried out in order to neutralise that tension.

Tension between institutional representatives' rights and responsibilities become apparent, for example, when one speaker encroaches on another's territory (Lindström and Weatherall 2015). When this occurs, the stance taken by a recipient may not be aligned with that of the speaker. Therefore, if a recipient of an announcement perceives the announcement to be unwarranted, s/he may attempt to reassert and reinstate their perceived symmetrical status which then have to be interactionally negotiated on a turn-by-turn level, as the interaction unfolds.

Alternatively, resistance can occur when a recipient disagrees with the action conveyed by a speaker's utterance, for example when a recipient interprets that utterance as an announcement, but the speaker intends it as a proposal. On those occasions, the utterance is treated as a unilateral decision i.e., an announcement (Stevanovic 2012). Interactional work then needs to be carried out to re-establish participants' deontic and epistemic statuses. In an ABE context, although institutional roles of RIs and IOs are established and set in written guidance, the practical negotiation of each other's right to propose and announce need to be accomplished during the course of the interview. If and when a mismatch occurs between IOs announcing the topic of talk and RIs proposing an appropriate aid, they work towards re-establishing each other's interactional positions.

Misaligned interactions are not restricted to interlocutors' deontic and epistemic statuses alone. Talk in interaction is never free from problems in "speaking, hearing and understanding" (Schegloff et al 1977: 361) and when conversation breakdowns occur, participants typically perform interactional work to repair such miscommunications (Sacks et al 1974). The next section reviews the literature on repair.

2.2 Repair

There are several ways in which repair of conversation breakdowns can be accomplished. Repair can be initiated by Self (i.e. the individual causing the trouble) or Other (i.e. the recipient of that trouble). When those initiations are repaired, that repair can be completed by Self or Other (Sacks et al 1974). In typical conversation, this interactional process results in four types of repair: Self-initiated Self-repair, Self-initiated Other-repair, Other-initiated Self-repair and Other-initiated Other-repair (Sacks et al 1974; Schegloff et al 1977). Participants therefore treat repair as "an integrated, cross-turn and cross-person, system for sustaining the mutual-intelligibility of dialogue" (Colman and Healey 2011: 1563) and in doing so repair enables participants to maintain intersubjectivity (Schegloff 1992). Self-initiated repair is reviewed first, followed by Other-initiated repair.

2.2.1 Self-initiation of repair and Theory of Mind

Overwhelmingly, in typical interactions, Self-initiated self-repair predominates (Sacks et al 1974; Schegloff 1979; Levinson 1983; Clift 2014). Self-initiated Self-repair occurs in one of three positions: In the same turn as the trouble source turn, in the transition space immediately after the trouble source (i.e., just after the trouble source turn has finished and before the next speaker's turn) or in third turn after the trouble source turn i.e., the turn subsequent to the one that follows the trouble source turn (Schegloff et al 1977: 366). In other words, repair occurs at the level of the turn constructional unit (Schegloff 1979; Wilkinson et al 2020).

For example, in the following hypothetical example, Self-initiated Self-repair occurs in all three positions.

Example 2.1: Self-initiated self-repair

1.	Tim	Where did Ja - did you see Jack?	Self-initiated Self-repair in same turn as trouble
2.	Bob	At the fairground by the popcorn shop	
3.	Tim	Yeh, me too	
4.	Tim	Actually, it wasn't so much the popcorn shop as closer to the rides	Self-initiated Self-repair in transition space after trouble
5.	Bob	Then we walked to the dragon's den and got something to eat	
6.	Tim	Yum	
7.	Bob	And or I mean dragon's cove not den	Self-initiated Self-repair in 3 rd turn after the trouble source turn

Self-initiated Self-repair is not a typical feature in pedagogical situations where a more knowledgeable teacher (i.e. 'Other') initiates, and also completes repair of problems generated by less knowledgeable Self (Clarke et al 2017, McHoul 1990). A similar pedagogical-like situation where Self-initiated Self-repair is not widely preferred occurs in conversations between language novices and more competent speakers (Bolden 2012). Analysing English-Russian interactions, Bolden (2012) found that more competent language users monitored the utterances of less competent speakers for potential miscommunications and self-selected to Other initiate and complete repair on their behalf. The epistemic resources a more competent language user or more knowledgeable teacher has access to in this type of institutional setting differs from that of a less knowledgeable student, thereby making Other-initiated Other-repair a feature. Relating this point to an ABE interviewing context and bearing in mind the propensity Individuals with an LD demonstrate, of accepting linguistic models from socially and linguistically more knowledgeable Others (Antaki et al 2007), it would be essential to avoid inadvertent verbal or non-verbal messages from an IO or an RI which would thereby influence a WLD's supposedly unbiased answer. As WLDs have the epistemic knowledge of an allegation, in the quest for understanding what has happened in the WLD's own words, it would be essential that interactional work is carried out to minimise Other-completed repair.

Atypical communication in which Self-initiated Self-repair is not a regular feature is noted in dysarthric¹⁰ communication, where it is usually the typically communicating recipient (i.e. Other) who initiates a repair due to problems in intelligibility (Bloch and Wilkinson 2004, 2009, 2011; Bloch et al 2015). In their examination of dyadic talk, Bloch and Wilkinson (2011) explicate the manner in which Other-initiated (i.e. non-dysarthric speakers) Self-repair of problems occur. Firstly, non-dysarthric speakers focus on a specific part of the problematic utterance in their Other-initiations rather than the problematic utterance as a whole, thus enabling the dysarthric speaker to target the misunderstanding more accurately. Secondly, although repair is initiated by Other, speakers with dysarthria take responsibility for spontaneously and independently using a strategy of dividing the entire repair into smaller targets; thus enabling themselves to complete repair on one aspect of a trouble at a time. The atypically communicating participants in their study only had expressive communication difficulties, which differ from the atypically communicating WLDs in this research. Here, WLDs lack some of the interactional resources to independently repair their own breakdowns.

Identifying that a breakdown in communication has occurred in one's own talk in order to Self-initiate repair or to spontaneously select targeted strategies such as those in the studies reviewed above depends on a mature Theory of Mind (Heritage 2014) which is the ability to realise that other people's thoughts and

¹⁰ Dysarthria is a motor speech disorder where features such as intelligibility, rate, volume, and pitch are disrupted due to a neurological condition. Dysarthric communicators do not necessarily have a cognitive difficulty.

ideas are different to one's own (Baron-Cohen 1989; Bogdashina 2006) and is essential in order to establish common ground (Enfield 2006, Stalnaker 2002). Unless participants share common ground about a topic and keep track of incremental additions, they will not be aware of what Other knows or does not know, impacting progressivity (Clark 1996). With typically communicating individuals, Theory of Mind starts to develop between the ages of 3 and 5 (Wimmer and Perner 1983) and this is the time when typically developing children begin to realise the importance of telling the listener what they know rather than assume Other knows their thoughts or have similar knowledge bases. Theory of Mind typically develops in line with language development (Walker and Murachver 2012) but in some individuals such as those with an LD, this awareness is impaired irrespective of chronological age or linguistic competence, impacting their ability to perceive that there has been a conversation breakdown in their own communication (Donahue et al 1980; Shepherd and Mortimer 1996; Zelazo et al 1996; Nader-Grosbois et al 2013).

2.2.2 Other-initiated repair: Insert and post-sequence expansions

Other-initiated repair is typically interactionally accomplished by expanding a problematic adjacency pair¹¹ and this has been traditionally undertaken in two places. Firstly, talk may be inserted in between the first and second parts of a pair, after the occurrence of a dispreferred or problematic first part but before the second part has occurred, as an insert sequence. This insert repair sequence decreases the likelihood of occurrence of a problematic or dispreferred second part of the pair i.e. the response to the first part (Schegloff 2007d, f; Liddicoat 2011; Stivers 2014), and "addresses matters which need to be dealt with in order to enable the doing of the base second pair part" (Schegloff 2007d: 99). The following hypothetical example, where Ann requests information from Bob, illustrates the manner in which Other (i.e. Bob, the recipient of the miscommunication) initiates repair by recruiting an insert sequence.

 $^{^{\}rm 11}$ See section 3.3.2 chapter 3 Methodology for a detailed review, but section 1.1 introduced this concept in chapter 1.

Example 2.2 Other-initiated Self-repair: Insert sequence

1.	ANN	First Pair part (base)	where does he live?
2.	BOB	FPP (Insert sequence)	where does who live?
3.	ANN	SPP (insert sequence)	shaun
4.	BOB	Second pair part (base)	on Doderhill road

Ann's request, the problematic first part, "where does he live?" warrants Bob initiating an insert sequence (line 2) in order to clarify who the question is about and thereby enables him to provide his answer (line 4). Bob's insert sequence made his answer to Ann's first part of the question-answer sequence, relevant. The insert sequence, although interrupting the flow of the topic and temporarily stopping progressivity, interactionally orients to repair of a problematic utterance (i.e. the lack of person reference in line 1) and makes the response (line 4) to that first part (i.e. request for information in line 1) more relevant to the initial request. Schegloff (2007d) asserts that overwhelmingly such Other-initiated repair occurs in the turn after the trouble source turn and the manner in which troubles are addressed is typically by recruiting repair initiation devices. However, the pattern of such currently-described insert sequences typically involves speech-only repair, not entirely representative of communication aid focused RI-mediated ABE interviews, which may present with unique trajectories.

The second way that has been documented relating to a speech-only breakdown, typically consists of the addition of a sequence expansion after a problematic second part of a pair, conventionally referred to as a post sequence expansion, instigated by the recipient of a miscommunication (Schegloff 2007f; Liddicoat 2011; Stivers 2014). In other words, the second part of the request-response sequence is dis-preferred or irrelevant in some way, resulting in the second participant perceiving a breakdown to have occurred. Consider the following example.

Example 2.3 Other-initiated repair: Post sequence expansion

5.	ТОМ	First Pair part (Base)	where does he live?
6.	BOB	Second pair part (Base)	on dodderhell road
7.	ТОМ	FPP (post-sequence expansion)	where. say that again
8.	BOB	SPP (post-sequence expansion)	on DODDERHILL road

In example 2.3, Tom makes the following request for information (line 5), "where does he live?" which is the first part of that sequence. Bob then provides his second part response, "on dodderhell road", which causes Tom some misunderstanding and therefore he treats line 6 as being problematic and "expansion-relevant" (Schegloff 2007f: 117). To repair this trouble, Tom follows that completed sequence with a post-sequence expansion (line 7), "where. say that again". Bob then completes the second part of the post-sequence expansion by repeating his previous response in a louder voice and repairing his mispronunciation (line 8). Progressivity is put on hold here too, but Other-initiated repair occurs at the level of the sequence (Wilkinson et al 2020) and once repair is completed, the conversation progresses. The trajectory of aid-focused post-sequence expansions is, to the best of the researcher's knowledge, not been studied.

2.2.3 Ordering of repair devices in multiple sequences of Other-initiated repair

A range of speech-focused repair devices recruited in Other-initiated repair previously independently described by other researchers (Schegloff et al 1977; Drew 1997; Hayashi et al 2013) have been systematically reviewed by Kendrick (2015). Kendrick also includes "bodily-gestural" (2015: 178) practices in passing in his review, as devices that could be used to initiate repair, such as head and body movements however his data consist of a linguistically able data set, who understandably would not typically use communication aids in repair. Atypical communication was only referred to incidentally, in a sentence on sign language, which is unaided communication and not relevant to this thesis on low technology aided communication. Although speech is the preferred means of communication for verbal communicators, as a repair initiating and completing device, it may not always be the most effective for individuals with an LD.

Most misunderstandings are repaired "virtually immediately" (Schegloff 1992: 1302) resulting in repair ordinarily taking no more than two repair sequences to be accomplished (Schegloff et al 1977), so that "it is unusual to find more than three" (Schegloff 2007d: 106). However, when immediate repair does not occur, initiator devices are typically recruited in a hierarchical manner, demonstrating a "natural ordering" based on their relative strength or power to locate a repairable. (Schegloff et al 1977: 369). Therefore *weaker*, less specific repair devices are recruited first but when these do not work, *stronger*, more specific devices are recruited to definitively repair that breakdown.

Svennevig (2008) found that when participants used weaker devices, they were orienting to a trouble as a problem of hearing rather than understanding or acceptability. In other words, "there is a preference for trying the least serious construal of a problem first" (Svennevig 2008: 347). In doing so, it provides the recipient of the misunderstanding more time to process the meaning of the original troublesome message and by serving as a placeholder, it allows the hearer a second opportunity to repair if needed. Svennevig (2008) further asserts that by orienting to breakdowns by using weaker devices first, it offers the speaker an opportunity to save face by modifying their original utterances to make them more acceptable to their conversation partner. In other words, recipients orienting aspects of repair (Svennevig 2008). The hierarchical order (or not) of communication aids as repair initiators has, to this researcher's knowledge, not been documented in the literature on atypical communication and this thesis launches that process in chapter 4.

Multiple repair sequences, although unusual occurrences (Schegloff 1992), have been documented in research on breakdowns caused by speakers' low language proficiency (Egbert 2004). Egbert (2004) analysed a telephone conversation consisting of multiple repairs which took place between a German Telekom operator and a caller with a non-native German accent, asking for a phone number of a specific organisation in a German city. The Telekom operator recruited seven repair initiations to resolve the trouble, but they were grouped in to three sets. A single initiation targeted the entire trouble source turn and then each subsequent set comprised of three multiples, each of which targeted a separate aspect of the trouble source turn. The first multiple targeted the name of the city, the second multiple targeted the institution within the city and then finally the third multiple focussed on the particular agency within that larger institution. Egbert (2004) therefore concluded that although an overall hierarchical arrangement in relation to the seven repair initiations viewed as a whole did not exist, repair initiators within each of the multiples were arranged in terms of increasing strength. Although Egbert's analysis involved a speaker with a lower language proficiency, the data therefore being like WLDs in these data, multiples in her work consisted of speech-only repairs. Aid-focussed repair sequences, should they occur as multiples in these data, could demonstrate previously undescribed trajectories. Furthermore, it is anticipated that if aids are used as repair initiator devices, they might be arranged in a manner that is specific to aided interaction.

Multiple repair initiations where a repairable has been divided into sections and repair initiators of increasing specificity have then been recruited have also been documented in atypical communication as a result of dysarthria (Bloch and Wilkinson 2004, 2013). Dysarthric communication typically relates to problems of intelligibility due to speech irregularities rather than language differences, which are more typically associated with atypical communication of individuals with an LD (section 2.3). Their analysis involves a non-dysarthric speaker initiating repair of a trouble in the speech of the dysarthric speaker, whose spoken speech is being augmented with a high technology communication device.

In their study, multiple repair sequences are recruited in resolving problems of *intelligibility* with the trouble source (i.e. the name 'Gladys'). However in spite of resolving intelligibility problems, the dysarthric speaker's message is still not *understandable*. Understandability for them relates to the contextual elements of interaction that impact a person's understanding on an emic level. In other words, understandability relates to how participants make sense of current talk

in relation to prior talk (Bloch and Wilkinson 2004, Drew 1997), and more related to the difficulties WLDs might experience in ABE interviews. Problems of understandability in their study are resolved only when other context-specific aspects (i.e. that Gladys was another resident in the care home) of the message are resolved. In the ABE context, although an IO and RI might be able to see what and how WLDs are manipulating aids because of their proximity with the WLD, the relatively reduced visual access afforded by a small video screen in court may make it more difficult for future over-hearers such as the jury, counsel and judges. It is anticipated that IOs and RIs would need to accommodate those perceived differences in understandability.

Even though the co-participants in Bloch and Wilkinson's (2013) study tackle different aspects of the trouble source separately, it is typically the speaker with dysarthria who takes responsibility for using that strategy. Although the authors do not specifically mention this point, it is assumed that the dysarthric speaker is able to understand what part of her communication had caused difficulty, a task that WLDs in this research might find challenging. If that is the case, it is anticipated that when misunderstandings occur in ABE interview talk, WLDs would have difficulty independently initiating a repair. Furthermore, although multiple repair sequences are noted in Bloch and Wilkinson's (2013) study, it is unclear from their analyses whether they are recruited in terms of increasing strength.

Sequence expansions as inserts or post sequence expansions target repair however when they are recruited in a different sequential position, a separate aspect of interaction is focused on, as is reviewed in the next section on pre-sequence expansions.

2.2.4 Pre-sequence expansions

A pre-sequence expansion, described as a type of sequence expansion occurring prior to an upcoming base adjacency pair interactionally prepares the participants for the imminent first part of that adjacency pair (Levinson 1983; Schegloff 2007e; Liddicoat 2011; Stivers 2014), predicting "the contingent possibility that a base first pair part will be produced" (Schegloff 2007b: 29). By securing the attention of the recipient, Schegloff (2007b) asserts that pre-sequence expansions, work on

efficiency of the interaction and progressivity of the conversation. Consider the following example.

Example 2.4 Pre-sequence expansion

9.	JAN	FPP (Pre-sequence expansion)	l went to that new shop yesterday . on my own
10.	BOB	SPP (Pre-sequence expansion)	uh huh
11.	JAN	FPP (Pre-sequence expansion)	it would have been good to have some company
12.	BOB	SPP (Pre-sequence expansion)	right?
13.	JAN	Base FPP	will you come with me next week?
14.	BOB	Base SPP	sure.

In example 2.4, the pre-sequence in lines 9-12 served as a pre-request prior to the overt request (i.e. to ask for company) in line 13. They are type specific (Schegloff 2007b; Stivers 2014), preparing the recipient for the type of upcoming adjacency pair, such as a request, above, which in ABE interviews, would relate to a request for information relating to an allegation. Pre-sequence expansions can also orient interlocutors to upcoming possibly problematic base pairs, and the interactional work carried out by participants either singly or when several sequences occur consecutively, serves to avert this possible trouble (Schegloff 2007b). Moreover, since they interactionally "lay the groundwork" (Stivers 2014: 193) for the type of pair that is upcoming (e.g. request sequence), Levinson (1983: 360-361) asserts that in relation to pre-request sequences, they can often result in an absence of an overt request altogether. Bearing in mind difficulties with Theory of Mind experienced by WLDs explicated in section 2.2.1, it remains to be seen whether such pre-sequences have the same effect on interviewers making requests for information in ABE interviews.

On some occasions, multiple pre-sequence expansions occur, and when they do, they reveal an "unfolding trajectory of action" (Schegloff 2007c: 215) with each subsequent sequence depending on the outcome of a prior. Each sequence expansion in a set of multiples is very similar in sequence type, with all working towards the completion of some action (Heritage and Sorjonen 1994). Although it is acknowledged that the goal of individual sequences when occurring together as multiples do work towards some overall goal, the internal structure of this larger overarching unit, should there be one, has largely been disregarded. It is possible that such a larger unit consists of some internal arrangement dependent on a yet to be described ordering and this research seeks to analyse such aided presequence expansions, when introduced in aided interactions with WLDs. Although the overall goal in these data relate to allegation-specific information elicitation, aided interactions could possibly follow a specific previously undescribed pattern.

2.3 Learning Disability

Individuals with an LD experience a wide range of linguistic and extra-linguistic communication difficulties and these difficulties are exacerbated in the investigative interviewing context (Clare and Gudjonsson 1993; Sanders et al 1996; Milne and Bull 2001, 2006; Milne et al 1999; Cederborg and Lamb 2008; Emerson et al 2011; Henry et al 2011; Douglas and Cuskelly 2012; Bull 2013; Antaki et al 2015). The linguistic factors impacting interviewing WLDs are reviewed next.

2.3.1 Linguistic factors impacting interviewing

Linguistically, individuals with an LD experience a wide range of receptive and expressive difficulties (Belva et al 2012). In terms of their receptive difficulties, firstly, the complexity of questions, especially when they are phrased such that their wording is mismatched to WLDs' levels of understanding impacts elicitation of evidence (Perlman et al 1994; Interdepartmental Working Group 1998; Kebbell and Hatton 1999; Milne and Bull 2001, 2006; Murphy and Clare 2006). Use of complex phrasing in interviews with WLDs was studied in detail by Brennan and Brennan (1994). Their survey of 52 IOs in Australia in relation to their perceptions

of interviewing WLDs showed that IOs believe that if the complexity of questions is reduced and WLDs are asked simpler and shorter questions, the accuracy of their answers would consequently improve. There is a general recognition that for interviewing to be optimum, the "questioning format and context" (Brennan and Brennan 1994: 69) need to be adapted based on a WLD's communicative abilities but they find that this typically does not occur in practice.

The view that shorter and simpler questions would yield more accurate information was subsequently confirmed by Prosser and Bromley (2012) who recommend that this can be accomplished with the use of "active verbs rather than passive ones", the "present tense" (e.g., "are you upset?" rather than "Have you been upset?") and avoidance of double negatives (e.g., "please sit still" rather than "Can't you stop fidgeting?") (Prosser and Bromley 2012: 114-115). Overall, reducing the complexity of language in ABE interviews is essential, especially when introducing aids into a primarily speech based institutional environment.

Researchers and ABE interviewing guidance advocate the use of open questions (section 2.1.2), however Perlman et al (1994) find this type of question type problematic for WLDs. They studied 30 adults with an LD (or "developmentally handicapped", which was the terminology they used) and 30 control individuals. In their study, the participants watched a 7-minute film clip derived from a longer failed murder plot and were asked questions based on different formats, the answers were then compared. In response to the recommended open questions, (Ministry of Justice 2011), or what the researchers term "free recall" and "very general questions" such as "Tell me...", they found that the participants with an LD provide significantly fewer pieces of correct information than control participants but the information that they do provide is accurate. Their findings are thus contrary to what the ABE guidance recommends as best practice, albeit the guidance does note that certain vulnerable groups will need modification.

In their study, the participants are also asked more focused questions which are divided in to what they term short answer questions (such as "Where did the stranger hide in the apartment?") similar in nature to the ABE guidance's (Ministry

of Justice 2011) specific closed questions. Specifically, on the short answer questions, they find that the information provided by participants with an LD is not as complete, accurate nor salient as the control group. Their findings mirror the ABE guidance's (2011) recommendation to use focused closed questions if open question fail.

Thirdly, participants are asked what Perlman et al (1994) term "specific questions" (such as "Was he wearing a scarf?"), which *implicitly* elicits a yes/no answer. They find that individuals with an LD perform well on the specific questions, if the questions are not misleading but when they are misleading, they perform worse than the control group. As this is an experimental controlled situation it is possible to know what questions are misleading however in an ABE context, IOs do not have knowledge of an allegation and the risk of inadvertently asking a WLD a leading question is high, and care should be taken to minimise that risk by asking information in the right manner.

In their study, participants are also asked questions that *explicitly* elicit a yes/no answer, in what they term statement questions (such as "The stranger knew where to find the keys. Yes or no?"). No third option such as "don't know" is offered to participants in their study. Individuals with an LD perform worse than the control group on Perlman et al's statement type questions indicating their vulnerability with this type of linguistic construction, the use of which has also been strongly discouraged in subsequent studies (Heal and Sigelman 1995; Milne and Bull 2001, Antaki 2013). Current interviewing guidelines (Ministry of Justice 2011) recommend more than one option should be asked and similarly, Heal and Sigelman (1995) recommend offering a multiple choice format. This thesis is interested in examining the manner in which communication aids can be recruited to overcome this challenge with WLDs.

Expressively, WLDs struggle to put their thoughts into words because they have limited strategies to express complex ideas coherently (Sanders et al 1996). Their problems with attention (Milne and Bull 2006) may result in a loss of intersubjectivity causing them to lose track of what the question is, producing expressively misaligned answers. They recall less pieces of information than the

general population (Milne et al 1999) and consequently their expressive communication may lack sufficient detail. WLDs' awareness of the relevance of and need to include specific pieces of information in their narrative is impacted and therefore important pieces of information get omitted (Sanders et al 1996; Milne and Bull 2001, 2006; Fisher and Geiselman 2010), resulting in inconsistencies in the quantity and quality of WLDs' evidence. However, one of their strengths lies in their relatively better visual processing skills (Cherry et al 2002; Dulaney and Ellis 1991). They often communicate using non-linguistic means such as the embodied actions and pointing and reaching-to movements in relation to objects or pictures (Cascella 2005) however in a legal system that prefers spoken communication, these non-linguistic forms are under recognised.

2.3.2 Extra-linguistic factors impacting interviewing

Extra-linguistic factors such as temporal ordering of information is a particularly challenging linguistic skill for WLDs (Prosser and Bromley 2012). This impacts a key interview requirement which is to sequentially narrate happenings in an allegation (Shepherd et al 1999; Ministry of Justice 2011: 74). Furthermore, other temporally related questions such as 'when' and 'how long' (in terms of time) pose particular difficulty because of an underdeveloped notion of time (Shepherd and Mortimer 1996). These linguistic difficulties are further compromised in an unfamiliar investigative interview. As the sequential order of events is a key point to prove in ABE interviews, it is hoped that communication aids are able to assist with eliciting this type of information from WLDs.

Other extra-linguistic factors such as suggestibility (Gudjonsson 1986, 1990; Kebbell et al 2004; Perlman et al 1994; Gudjonsson 1999) and acquiescence (Gudjonsson 1990; Clare and Gudjonsson 1993; Gudjonsson 1999; Murphy and Clare 2006; Sigelman et al 1981) are linked to and also affect quality of evidence in investigative interviews with WLDs. Suggestibility is the extent to which individuals accept overt or covert messages communicated during formal questioning, thereby yielding and shifting their answers based on external pressure (Gudjonsson 1990). In an interview where WLDs are unable to communicate happenings coherently and confidently in interview, they may

accept IOs' overt or covert messages, irrespective of their intent, thus leading to them changing their initial answers based on information communicated by IOs. This is especially true when information is phrased as leading questions (Kebbell and Hatton 1999), which can have a considerable impact on the information elicited and ultimately affecting the outcome of an investigation. It is therefore essential to determine if introducing communication aids into ABE interviews does improve WLDs' abilities to communicate their accounts more accurately, thereby resulting in a likely reduction in suggestibility.

In relation to acquiescence, Gudjonsson (1990: 227) defines it as "the tendency of the person to answer affirmatively regardless of content". Therefore, when questions are phrased such that their answers prefer agreement, many researchers have found individuals with an LD will typically acquiesce (Gudjonsson 1990; Heal and Sigelman 1995; O'Mahony et al 2012; Prosser and Bromley 2012) and may offer answers they believe IOs want to hear (Milne and Bull 2006), thus impacting the accuracy and consistency of information elicited and consequently affecting the outcome of an investigation. It is desirable that aids minimise this effect.

Rapley and Antaki (1996) urge researchers and practitioners to consider the linguistic context and manner in which interview questions are phrased when interviewing someone with an LD, cautioning against leading or "shepherding" (1996: 216) interviewees to an institutionally desirable answer, and it is relevant that aids do not cause this to occur. Additionally, individuals with an LD are used to typically communicating co-participants asking them known-answer questions (Walton et al 2020). Therefore when WLDs answer what they consider to be test questions, or questions the questioner knows the answer to, they could inadvertently acquiesce with what has been asked, resulting in incorrect or inaccurate answers. Aid use therefore should ideally be such that it safeguards against this risk.

2.3.3 Social and interactional context

In addition to the LD-specific linguistic and extra-linguistic difficulties experienced, the communicative functioning of individuals with an LD is

additionally, especially dependent on the social and interactional contexts they are immersed in (Kraat 1985, Wehmeyer et al 2008). Firstly, knowledge of interviewing as an institutional interaction and the interactional constraints and permissions it affords as explicated above, is a distinct advantage to participants however WLDs are at a disadvantage as they may lack world knowledge and interviewing experiences ordinarily encountered by neuro-typical individuals (Milne and Bull 2001). According to them their likely lack of exposure to life events would ill-prepare them for the institutional constraints imposed by an investigative interview, such as the participation asymmetries encountered in investigative interviewing explicated in section 2.1.1.

If they do have experience of interviewing, understanding that there are different types and purposes of interviews is crucial. Memories of previous experiences of being interviewed in a different context e.g. during assessments to access social care or educational facilities, may interfere with expectations and practices of investigative interviewing (Prosser and Bromley 2012). Therefore WLDs may worry that disclosing certain aspects of an allegation may have a negative impact on other aspects of their life such as changes to accommodation, medication or school/day care arrangements, resulting in the possibility of them cooperatively participating in investigative interviews being hindered. If WLDs have been interviewed by the police previously, resulting in post-interview feelings of blame, current interactions are likely to impact their participation in investigative interview, they are used in a manner that minimises this risk, and employing the skills of a trained RI should effectively accomplish this.

The outcome of successful communciation is dependent on how well a communication partner can adapt to and communicate with an atypically communicating speaker (Kraat 1985). In this context, if the visuo-spatial modality afforded by aids is a WLD's preferred communication modality, IOs and RIs should be able to modify their interaction to accomplish the desired outcome of eliciting information.

Wehmeyer et al (2008), advocate the view that the effectiveness of communication with individuals with an LD, is contingent on the communicative competence of their co-participants. From the perspective of ABE interviews, this research advances the view that rather than IOs expecting WLDs to endeavour to fit in with a linguistically competent IO's communication style, changing the interactive and communication expectations of an interview to suit the interactional needs of a linguistically less competent WLD should facilitate best evidence.

In so doing, the RI with the epistemic knowledge of how to facilitate this process, assumes the role of a language broker. As a language broker, an RI facilitates communication in this three party interaction, thus enabling linguistically less competent WLDs to communicate their evidence in a manner that is best suited to their preferred interaction style. The relevant literature on language brokering and multiparty communication is reviewed next.

2.4 Language brokering, multiparty repair and atypical communication

As introduced in chapter 1, RIs are neutral, non-partisan, trained communication specialists, who implement their clinical knowledge of specific types of communication vulnerabilities in a legal setting (Plotnikoff and Woolfson 2015). The majority of RIs have worked for many years in their base professions prior to receiving specific training in legal processes. They are recruited based on their ability to effectively assess atypical communication, and to provide language brokering assistance grounded in their assessment, by devising methods to manage interaction in multiparty interactions, such as in ABE interviews with vulnerable WLDs and IOs.

Bolden (2012) considers language brokering as a conversational practice where one interlocutor mediates understanding problems that stem from participants' divergent linguistic competence. Although the curriculum of IO training is predetermined (College of Policing 2013-2019), the actual course content varies from one Force to the next. Most of the interviewing training that IOs typically receive relates to linguistically competent witnesses and atypical communication is mentioned in passing. Consequently IOs' expectations of an atypically communicating WLD's communicative competence stems from their personal life experiences, which may or may not be representative of the particular communication and interactional needs of a specific WLD they are interviewing. RIs provide language brokering assistance to bridge this gap between WLDs' and IOs' divergent linguistic and interactional competence. Language brokering in typical situations involves repair of conversation breakdowns, the manner in which this occurs is reviewed next.

2.4.1 Multiparty repair: aligning as a team and asides (side sequences)

The research on brokering in multiparty interaction has demonstrated some unique features (Kangasharju 1996; Komter 2005; Mazeland 2019b; Sacks et al 1974) but shares some similarities with dyadic communication (Egbert 1997) during the process of repair. For example, Kangasharju (1996) demonstrates that participants align as a "collective" (1996: 294) working as one, in resolving disagreement with other members of that multiparty conversation who are not in that collective and leads to what she terms "team talk". Members of that temporary team demonstrate alignment with each other by completing or repeating each other's turns. They generally assume the stance of each other in that collective, thus when brokering is accomplished, it is carried out by becoming a temporary team with those whose talk needs repair.

Although Kangasharju's work relates to individuals with typical communication, it is possible that with atypically communicating WLDs, similar patterns of alignment would occur in RI-mediated WLD-IO interviews. However, although aligning with a WLD might occur, the way that alignment is demonstrated would be expected to differ: While repeating a WLD's prior talk would fall under an RI's language brokering role, completing their partially finished message would not. Besides not having the experiential knowledge of a WLD's allegation, such a practice would be incompatible with the RI's institutional role as facilitator (and not as spokesperson).

Mazeland (2019b) progresses that work on multiparty team alignment, in his research on formal business meetings. He finds that the way a second speaker

aligns with a prior speaker's attempt at repair as an ad hoc team, is by initiating new talk that continues to work on the overall goal of repair initially instigated by the first speaker, but then by also introducing another linked aspect of it, progressing the interaction in a slightly different direction. As a language broker in this context, it would again be epistemically and institutionally incompatible for an RI to align with a WLD by introducing fresh, albeit linked ideas relating to evidence. It is possible however, for an RI to align with a WLD by introducing the linked idea of using a communication aid to repair a breakdown, thus enabling the WLD to progress their own idea.

As participants align as a team, they involve themselves in a temporary break in the on-going main interaction as a "side sequence" (Jefferson 1972) or an "aside" (Komter 2005), where that problematic aspect of the interaction is resolved. After repair has been accomplished by the momentarily interactionally separate participants, they then re-join the original conversation once the trouble has been resolved (Sacks et al. 1974; Goodwin 1984; Egbert 1997). In the ABE interviewing context, temporary alignment between RIs and the other participants would be expected but in doing so, care would need to be taken that an RI's impartial and independent role is not jeopardised.

2.4.2 Language brokering, linguistically less competent speakers and interpreting.

The above research on aligning as a team relates to linguistically competent speakers. However, when one of the speakers is linguistically less competent such as a young child, a linguistically more competent adult caregiver is selected by the recipient of a miscommunication, to repair trouble in that child's talk (Bolden 2011). Research on doctor patient interactions with young children demonstrate that parents are brokered in as more competent speakers to speak on their child's behalf 95% of the time (Cahill 2010). Bolden (2011) shows that when a caregiver is prioritised in repair completion, the child's potential ability to communicate is completely disregarded, a finding supported by others elsewhere (Stivers 2001; Cahill and Papageorgiou 2007).

However, this practice of bypassing the less competent speaker is not exclusive to adult-child interactions. In English-Russian adult-adult interactions, where one of the speakers is more proficient in one of the languages, Bolden (2011: 252-253) finds that a speaker more proficient in Russian is brokered in to resolve a misunderstanding and therefore repair the breakdown in the speech of a less competent Russian speaker, bypassing that less competent speaker entirely. However, disregarding a WLD's ability to communicate is institutionally dispreferred. It is the WLD who has knowledge of an allegation and an RI as language broker in this context, necessarily needs to implement modifications to facilitate communication of that knowledge, ensuring that a WLD's attempt to communicate is not bypassed.

Bypassing a less competent speaker is sometimes seen in professional interpretermediated three-party interactions. In her work on Australian three-party interpreter-mediated Japanese-English police interviews, Nakane (2014) finds that when side sequences occurred, they are conducted monolingually. When misunderstandings occur between interpreters and the police, asides take place only in English and when breakdowns occur in interviewee-interpreter talk, Japanese is used. However, those asides are related to misunderstandings relating to the already-interpreted material and not to new, currently undisclosed information. Although it is impossible for RIs to engage in asides relating to presently undisclosed information relating to an allegation (because they do not have access to that information), it is conceivable that if they do engage in asides, it will be primarily related to understanding an IO's or WLD's current communicative intent, so they can better perform their language brokering role.

The process of momentarily splitting off and aligning as a team during language brokering activities such as repair results in speakers assuming different participant roles, as is reviewed next.

2.4.3 Mediated multiparty interactions and production roles.

Goffman (1981) deconstructs *speaker* and *hearer* roles in favour of a *production* and *reception* format that participants orient to in communication and interaction. Of relevance to an RI's language brokering role in aligning with one

or other participant examined in this thesis, is Goffman's production format. According to him, participants engaged in the task of speaking, orient to roles of animator, author and principal (Goffman 1981).

The animator is "the talking machine, the body engaged in acoustic activity, an individual active in the role of utterance production" (1981: 144). The author is the participant who has "selected the sentiments that are being expressed and the words that are encoded" (1981: 144), i.e., the participant responsible for constructing the ideas behind those words who can be different to the one producing the actual words. Lastly, the principal is "someone whose position is established by the words that are spoken, someone whose beliefs have been told, someone who is committed to what the words say" (Goffman 1981: 144), or as Goodwin and Goodwin explain (2004: 224), as being "socially responsible for what is said".

Considering RI-mediated interactions specifically, RIs as language brokers are necessarily required to understand and facilitate WLDs' authored messages, while maintaining their neutral and unbiased stance. When the language brokering role is accomplished with communication aids, RIs need to enable WLDs and IOs to animate their own messages, maintaining their independent statuses as animators and authors.

Typically, same-language interpreters on the other hand, predominantly assume the role of being the person who utters the words that were interpreted i.e. the animator, but sometimes as composer of the sentiments of those words thus assuming the role of author, if the sentiments from the source language are better expressed differently in the target language and result in editing of the source message. WLDs however, hold knowledge about an allegation, RIs do not. At times when a clarification of a speaker's source message results in a same-language interpreter communicating their own message, they assume the role of principal (Hlavac 2014; Nakane 2014; Krystallidoua and Pype 2018). As a facilitator of communication between an IO and a WLD, RIs are required to maintain their neutrality throughout and abstain from offering opinions (Ministry of Justice 2015) However according to Wadesnjö (1998) in her research on three party same language interpreter-mediated interactions, in deconstructing production roles in the manner Goffman (1981) describes, one assumes communication to be a monologistic uni-directional transfer of information from one to another. She claims that this is often unrepresentative of the intertwined activities of listening and speaking characteristic of dialogic conversations and specifically of mediated multiparty interactions. She maintains that when analysing speaking roles in mediated multiparty interactions, one must take into account the way in which individuals react to how they listen. Wadesnjö proposes three alternative modes relating to production: firstly, a reporter role, where the individual repeats back verbatim what s/he has heard, secondly a recapitulator role where the individual summarises what is heard and thirdly, a responder role where the individual progresses the conversation by introducing new content on their own thus demonstrating that they acknowledge being spoken to.

However, although it is conceivable that an RI could repeat back verbatim what the other party has not heard (and that is legally allowed), it is unlikely that Wadesnjö's (1998) recapitulator or responder roles accurately mirror the production practices in RI-mediated interactions. The RI's language brokering role as neutral facilitator and not spokesperson is incompatible with Wadesnjö's recapitulator role where a participant summarises what is heard. For that same reason, it is also institutionally impossible for an RI to progress a conversation by introducing new content. Furthermore, her data is speech focused, unlike the data in this research and does not consider embodied aided communication. Goffman's (1981) distinction of animator-author-principal within his production format, even though focusing on dyadic interactions and although not directly referring to the possibility of nonverbal, atypical, or specifically aided interaction, remains most relevant to this research on RI-mediated police interviews, where the emphasis on a WLD *producing* their message *in their own words* (rather than a mediator-replicated one), is paramount.

2.4.4 Production roles, multiparty interactions, and atypical communication Interactional asymmetries and shifts in production roles are observed in multiparty atypical communication where one of the participants has a communication difficulty and another participant accomplishes a language brokering role.

Bloch and Beeke (2008) examined the role of a language broker where a man with aphasia¹² was engaged in a multiparty interaction about his garden. A relative in his role of language broker, involves himself with co-constructing their talk by providing a "grammatically fleshed out redoing" (2008: 983) of the atypical communication, thus facilitating others in the conversation to understand what the man with aphasia means to say by authoring new talk, although retaining the essence of the source message. The language broker in this study moves seamlessly from the role of animator to author of the talk, depending on the situation, although the principal remains the man with atypical communication, quite unlike a situation RIs would find themselves in. RIs are institutionally required to facilitate a WLD's self-conceived communication therefore authoring or becoming principal would be incompatible with their role.

More recently, multiparty broker-mediated aided interactions have been studied by Auer et al (2020). Their study involves a woman with atypical communication with a communication aid, her university visitor and her assistant who helps with activities of daily living. Although the assistant is sometimes brokered in to repair communication between the atypical communicator and her visitor, and at times animates and authors her message on her behalf, the woman with atypical communication signals through gaze that she is still the principal of those utterances. Even though it is primarily an RI who recruits aids into interviews, they are institutionally prohibited from speaking on behalf of a WLD and the way communication aids are introduced into an interview necessarily needs to reflect this stance.

However, in neither of those studies does the linguistically competent coparticipant *anticipate* situations of breakdown before they occur, thereby preempting a conversation breakdown. Co-construction in those studies takes place after the breakdown has occurred. In their role as language broker, RIs can

¹² Aphasia is an acquired language disorder as a result of a neurological trauma such as a stroke or cerebral bleed and can result in difficulties with understanding and use of language.

anticipate and pre-empt a breakdown by introducing a range of practices, one of which may include communication aids (Ministry of Justice 2015). The relevant literature on communication aids as facilitators of communication is reviewed in the next section.

2.5 Communication aids, objects, and signs

The ABE guidance (Ministry of Justice 2011: 89) relating to types of communication aids available for use in interview loosely lists them as "Drawings, pictures, photographs, symbols¹³, dolls, figures and props" and as such the terms are undefined but they are roughly divided into 3 dimensional physical objects and 2 dimensional images. An aid's key affordance which is its ability to represent a concept, i.e. its semiotic potential, irrespective of whether it is an object or an image, is reviewed next.

2.5.1 Communication aids and signs representing concrete concepts: 3 dimensional objects and 2 dimensional images.

A communication aid's ability to be viewed as a sign, that in its broadest sense, refers to "anything that 'stands for' something else" (Chandler 2007: 2) is crucial. In terms of their semiotic affordances, Peirce (1893-1913) trichotomises signs as icons, indexes, and symbols. Considering icons first, he argues that icons are likenesses that convey ideas of the things they represent by simply imitating them. Such an icon symbolises or represents another thing or concept (i.e. the referent) because of its similarity with it.

Those visual representations can occur as three-dimensional physical objects or two-dimensional images. In the ABE interview context, the former are wooden mannequins (referred to as *puppets* and *figures* in the ABE guidance) and miniature furniture (included in the term *props*) but also any three-dimensional

¹³ The term *symbol* in the ABE guidance (2011) is used in the context of printed pictures of people or things that are outlined in black. They are not photographs. Symbols in the guidance does not refer to Peirce's typology, but refers to the terminology used by RIs.

physical object that represents a referent to the user (also included under the term *props* in the ABE guidance and reviewed in section 2.5.3). Two dimensional images in the ABE context include coloured pictures, gingerbread cut-outs, and line drawings. An icon is qualitatively like the referent according to Peircean typology and Morris (1971: 98) furthers that assertion, taking a quantitative view of them, arguing that iconicity is a "matter of degree". A three-dimensional icon such as a wooden mannequin that has a head, a torso, and limbs, can be manipulated, positioned, and placed in different positions however although it looks humanoid, it cannot move spontaneously and is devoid of details such as skin texture and hair.

Similarly, a two-dimensional icon such as a coloured picture of a male suspect is iconic because it resembles that adult male to a great extent in terms of their physical characteristics however the representation (i.e. the image) is not the same as the original (adult male) because it lacks personalised facial features, depth, and the ability to speak and move. It is clearly different to an icon of a female or an animal. The more a representation resembles its referent, the easier it is to perceive the similarity between the two (DeLoache 1995), and icons may need to be personalised in interview to reduce ambiguity. Personalisation ensures an icon represents a specific concept with certitude, so that when the icon is incorporated into the ABE interview, there is no doubt as to who or what it represents.

Furthermore, it is possible for a representation to exist as a current non-sign construct but as a potential sign, until a recipient orients to it, after which it then assumes the relevance of an actual sign (Nöth 1990). In other words, a wooden mannequin for example, would remain something an artist uses as a sketching aid until RIs, IOs and WLDs orient to it as a person in an allegation, at which point it starts to represent a male suspect. What is made relevant to one WLD at a given point in time may assume a different relevance with another, at a different time.

However, for a wooden mannequin or picture of a person to be made relevant in an interview, an RI would need to index them in some way. Indexes form the second aspect of Peirce's (1893-1913) trichotomy. While icons physically represent something, a concept can be indexed by virtue of its physical connection with a sign such as a guidepost that points in a specific direction and references a particular town (Peirce 1893-1913). Physical embodied actions index specific concepts by drawing attention to their referents, such as the indexical embodied actions of pointing to, showing, and placing of an aid (sections 2.5.6 and 2.5.7). The more divergent the concrete concept is from its symbolic representation, the more difficult it is for an individual to perceive what it represents (De Loache 1995) and hence indexing it in some way is crucial.

Lastly, Peirce (1893-1913) asserts that symbols are signs that are arbitrarily assigned and linked to a referent by convention such as a combination of sounds comprising a spoken word e.g. "assault" or "kicked" etc. A particular sound combination that signifies a referent is the material imprint or impression that we hear and assign meaning to because of being conventionally associated with that referent. Stivers and Sidnell (2005) conclude that symbols are typically vocal-aural signs however visuo-spatial signs are generally icons and indexes. IOs and RIs typically use speech (symbolic signs) with WLDs in interviews, as most people are familiar with and communicate using talk and orality is the standard communication in the legal setting. However, conversation breakdowns do occur and then communication aids (iconic signs) are introduced into the interactions and made relevant through physical embodied actions (indexical signs), progressing the interview as typically a WLD's visual processing is more effective than the oral-aural mode.

The perception of a sign as such relates to the physical relationship between it and its referent and depends on an individual's ability to demonstrate that the concrete form of a thing or concept can be represented in its abstract form (such as an icon, index, or symbol). De Loache refers to this feature as "dual representation" (1995: 111) and is crucial in using aids as representational objects. However, she warns that assuming this dual representation is possible for all individuals should not be taken for granted and can only be achieved through experience. In ABE interviews, RIs do not assume all aids will be successful with all WLDs: they are aware of the diverse nature of WLDs' communication abilities and experiences. RIs meet with the WLDs before the interview, evaluate their communicative skills, experiences and needs and thereby, assess the likely efficacy of using specific aids in the interview with individual WLDs and only then do they recommend their use.

Evidence of how theory impacts reality is scarce, but Brady and McLean's (1998) study attempts to bridge the gap. A group of 68 individuals with an LD (or Mental Retardation, which was their term) was evaluated in terms of their abilities to match three different real objects (a pair of sunglasses, a plastic spoon and a hair brush) to 4 types of signs: Black and white line drawings, miniature objects, speech and mime. Their aim was to identify if there was a difference in how individuals with an LD perceived different types of signs. They found that their participants were more able to match objects to line drawings than to miniature objects, mime or the spoken word and this ability improved with greater linguistic ability. Brady and McLean (1998) suggested that their participants' comparatively greater experience with working with line drawings, coupled with the fact that they were presented as the first option, might have impacted their results in relation to this condition. It is possible that there are other factors at play in sign recognition however this thesis primarily relates to the way interview participants interact with RI-selected aids (as signs) in and through interaction thereby impacting the quality of evidence. The meanings intended by those making those aids, such as when multimodally analysed in the socio-semiotic tradition (Jewitt et al 2016; Kress 2012) is of secondary concern. Aid selection and use is managed by RIs through their professional assessment and whose rationale was not part of this research, although could be considered in follow-up work.

2.5.2 Signs representing abstract temporal sequencing

The objects in the Brady and MacLean (1998) study represent concrete concepts that can be seen, touched and physically manipulated. In ABE interviews, examples of concrete concepts can include items such as the name of a suspect, a bladed item or a body part. Concrete words and concepts are overall easier to understand than abstract ones (Schwanenflugel 1991). However, enabling a WLD to communicate abstract temporal concepts such as sequencing of the events in an allegation, a concept that is particularly challenging for WLDs, is also of great importance in ABE interviews. Research has been carried out in other professional

areas in order to enable visualisation of abstract concepts. For example, communicating a sequence of events using iconic signs in timelines has been elicited in health care (Morrow et al 1996) and education. Schwanenflugel (1991) argues that timelines provide visual information that enable the abstract concept of the passage of time to be more easily understood.

Timelines are a graphical representation of a defined time period, usually divided into smaller time units, with personal and/or public landmark events that serve as cues to prompt recall (Glasner and van der Vaart 2009). The length of the reference period as well as the number of smaller time units and landmark events varies and is dependent on the situation and users. Besides serving as prompts to recall past events, they are used, in the context here, to gather evidence about sequential information contextualising events relative to each other. In the ABE context, this is especially relevant, as IOs typically require a chronological elicitation of events in an allegation and WLDs find this aspect of communication especially difficult.

Furthermore, using a graphical representation of time and sequence enables recall of more detail, minimising the risk of omitting events (Glasner and van der Vaart 2009), especially relevant in the ABE interview context where elicitation of a complete, coherent and accurate account is the prime institutional goal. This is especially true of individuals recalling complex information involving many details (Engel et al 2001). What may be a relatively easy task for those without cognitive and linguistic difficulties often proves to be more challenging for WLDs. To the best of this researcher's knowledge, specific research on low technology aid use in real-life legal contexts is under reported and this gap is addressed here.

2.5.3 Aids in legal contexts: mock WLD studies, self-report and drawing.

More recently, research involving simulations has been carried out on low technology communication aids in mock-legal settings. Dando et al (2009) used adult mock witnesses who, having viewed a crime film were then assessed in terms of the amount of detail they could recall, while using a drawing intervention the authors termed *Sketch Mental Reinstatement of Context*. None of the mock witnesses demonstrated atypical communication. The researchers found that

mock witnesses provided greater detail using their technique, than when no sketching was allowed and IOs' and RIs' positive perceptions of allowing witnesses to sketch while eliciting data were reported by Mattison and Dando (2020). However, when this technique was incorporated in to a study of children with a diagnosis of Autism Spectrum Disorders¹⁴, who watched a crime film and subsequently underwent mock interviews, Henry et al's (2017) findings did not support a benefit from sketching with that type of atypical communication. Moreover, a real drawback in relation to the above studies is that they did not involve WLDs undergoing real investigative interviews, nor did they involve participants with an LD however they are relevant in that they are three of the few studies relating to low technology aid use in legal contexts.

Interactional research has recognised for some time that everyday physical objects used collaboratively with talk can render those resources relevant within the surrounding talk (Heath and Luff 1992; Suchman 1992; Scott and Purves 1996; Streeck 1996; Heath 1997). ABE guidance makes indirect reference to props. When objects are used in conjunction with talk, "participants do not in any way treat talk as defective" (Streeck et al 2011: 1). In other words, any physical object whether conventionally considered a communication aid or not, when used in conjunction with talk, can aid progressivity and message transfer. In those situations, the action that is accomplished is the focus of those object-focussed interactions rather than the linguistic form itself (Mondada 2011b). This is especially relevant to this thesis where physical objects such as wooden mannequins and other physical everyday objects were used by participants. The following section reviews the literature on a range of institutional situations where physical objects, not typically considered aids, have facilitated communication.

2.5.4 Aids as any object that can augment or replace talk

More recently, interest in the interactional role of objects as resources and "tools for talk" (Day et al 2014: 101) to aid, shape and accomplish actions in professional

¹⁴ Autistic Spectrum Disorder (ASD) is a neurodevelopmental disorder that affects an individual's social communication, social interaction and flexibility of thought. ASD is a lifelong condition that can co-exist with LD.

and social contexts has increased (Streeck et al 2011; Gerhardt and Reber 2019). Everyday physical objects from the environment, when incorporated into embodied activities results in multimodality interactions that consist of verbal actions and physical practical actions organised in a systematic and orderly manner and jointly accomplish common aimed-for courses of actions. Erickson (2004:165) describes this action of adapting pre-structured materials and making do with what is available at hand, to accomplish whatever work needs doing as "bricolage" (2004: 165). Communication aid use in investigative interviewing is a relatively new field of work and therefore RIs as *bricoleurs* necessarily introduce novel ways of assisting communication. They recruit items from the environment logically, based on the interactional needs of the moment. Multimodality interactions are accomplished by participants using speech, bodily movements and environmentally-sourced everyday physical objects to progress through and arrive at an interactional objective (Gerhardt and Reber 2019), which in the case of ABE interviews is elicitation of information.

Streeck et al (2011) demonstrate how combining resources such as talk, embodied action and objects from the environment "greatly expands the repertoire of possible action available to participants" (2011: 2), using an example from research carried out on a group of archaeologists working on an excavation at a historical site. They assert that if spoken language alone was used in their archaeological activity, talk would have become unmanageable and unwieldy. However, because a multimodality approach was adopted, archaeologists were able to communicate more complex variables with precision and flexibility, in a readily-available manner.

When participants engage in face-to-face multimodality interaction, the physical positioning of their bodies together with objects in the environment demonstrates their mutual orientation to each other as well as to the relevant objects, in Goffman's "ecological huddle" (1963: 95). This dual-focused physical positioning of participants in such a participation framework, typically sustained over time, demonstrates their availability to engage in co-operative embodied object-focused interaction with each other (Streeck et al 2011). Their talk centres around an identified physical activity which in the case of this research focuses on aided

interactions, creating a framework where talk and embodied actions co-interact. Their physical positioning, oriented towards the objects and each other, enable them to deploy, index and exploit the semiotic potential of different relevant objects (and in this context, aids) in space, contributing to the progressivity of the current action (Goodwin 1979, Hayashi 2005) and a shared goal (Streeck et al 2011) which here, is co-producing evidence. In the ABE context then, the physical positioning of an IO, RI and WLD is expected to be of relevance in facilitating them to access and manipulate aids cooperatively and systematically during the co-production of investigation relevant information.

Actual physical objects have been used interactionally to augment or replace spoken talk in several profession-specific practical actions (Mikkola and Lehtinen 2014; Nevile et al 2014; Weilenmann and Lymer 2014). Day and Wagner (2014) used video recordings from a design centre where engineers were discussing alternate ways in which a particular type of industrial digger could be made to work. An everyday object such as a stick was given to student engineers and used in talk alternatively to secure the floor or to bid for a turn at talk. It was the physical embodied actions such as reaching for, touching, grasping, or moving a stick that made the stick's affordance as a turn-taking device relevant. The stick augmented talk. Talk was the focus of joint attention and when offline objects were brought to the foreground during on-going talk, they augmented it making the meaning of messages relevant. Aids used in ABE interviews would need to have the potential to augment interview talk, and if not, their use would be irrelevant.

In contrast, to talk being the focus and objects augmenting that talk as above, Mazeland (2019a) demonstrates a situation when objects become the focus of a physical activity and talk is relegated to being incidental. In his research on embodied interaction in a nursing home, during a physical activity of putting on a compression stocking, he found that talk did not determine the formal structure of the development of that physical activity. Instead, it was used to signal changes in sub tasks within that primary care-related object-focused physical activity. Participants oriented to the stocking and pulling of it thereof as being essential to the interaction and of principal importance. The positioning of talk within the body of that physical activity facilitated progression of pulling on the stocking, but the talk itself was treated as being incidental to it. The talk was important only because it signalled activity changes during the physical activity however the object (i.e. the stocking) and the physical actions related to its use, replaced talk. Communication aids in interview talk and their associated physical actions can also replace talk if needed.

Besides being recruited as resources to augment or replace talk, objects are sometimes used as aids to instruct and request.

2.5.5 Objects in instruction giving and requesting

In her research on requesting action of junior surgeons in the operating theatre, Mondada (2014c) demonstrates how a chief surgeon uses operating instruments as aids to talk in instructing immediate action. She shows how they are used in conjunction with physical actions such as moving them in a particular manner or direction, instead of spoken instructions, a finding corroborated by Bezemer et al (2019). They find that a surgeon uses their operating instruments in coordination with physical actions as aided embodied instructions "in the absence of, or alongside, talk" (Bezemer et al 2019: 132), thus replacing or augmenting spoken talk. It is likely that IOs and RIs would use aids in instruction giving rather than instruct via talk alone. Just as instructions are used in surgery to accomplish an end, it is possible for intructions to be used in aided talk to elicit evidence.

In terms of responding to instructions, Rauniomaa and Keisanen (2012) find that about three quarters of responses to requests for objects result in a physical action only in response, such as being handed a sweet, or being given a tissue. A quarter involve a physical action (involving an object) used in conjunction with spoken acceptance. In other words, when responses involve aided physical actions only, objects are exchanged instead of speech being spoken i.e. the aided responses replace spoken communication, a practice which should be demonstrable in RI-mediated aided interviews.

The above research demonstrates how everyday objects recruited into talk can varyingly be incidental to talk and thereby augment that talk or are essential to talk and therefore replace that talk, adding to the quality of the information to accomplish some action and progress a conversation towards an institutional goal. However, for the semiotic potential and relevance of an object to be exploited, its affordances need to be made explicit. Mondada (2014a) illustrates this practice using objects in teaching cooking skills in the kitchen. The physical affordances of everyday objects such as eggs, shallots and fennel are first made relevant by the chef, and their properties, as objects that can be transformed into an edible cooked meal, are made explicit first, before the students can be instructed on how to use them. Similarly, adult WLDs may have had little or no prior exposure to forensic interviewing and the specific and allegation-specific affordances of individual communication aids and therefore, time needs to be spent introducing the aids before employing them in evidence gathering. This would be especially relevant with bricolaged items that ordinarily serve a different purpose, and the manner in which the affordances of objects are made explicit, is now discussed.

2.5.6 Pointing

The embodied actions incorporating objects into an interaction such as the indexical practical actions of pointing¹⁵ and showing have been increasingly studied over the last decade or so (Heath and Luff 2011; Mondada 2014a, c, d; Bezemer et al 2019; Gerhardt 2019; Mondada 2019b). Pointing can assign meaning to referents that are distant in space and time and is a "foundational building block of human communication" (Kita 2003: 1). Pointing presupposes joint attention (Sidnell and Enfield 2016). Its semiotic affordance relates to the indexical nature of that practical action which refers to or directs attention to something that is physically connected with it (Peirce 1893-1913: 5).

In the context of talk, pointing is a situated phenomenon that involves maintenance of intersubjectivity by establishing shared attention between coparticipants (Donovan et al 2011; Franco and Butterworth 1996), the space they interact in, the activity they are engaged in and their postural orientation to each other, maintaining their participation framework (Goodwin 2003). Goodwin defines a particular place in the environment towards which the pointing is

¹⁵ As has been explicated in Chapter 3 Methodology, it was not possible to transcribe eye shifts (and resulting eye pointing) from the data made available to this researcher. Therefore pointing, in this thesis refers only to finger pointing.

directed and where the recipient of this pointing should direct their gaze as the "domain of scrutiny" (2003: 221) and the organisation of an entire system within which various objects can function as targets for pointing as an "activity framework" (2003: 221). In an example he gives, researchers at an archaeological digging site use a trowel as a tool to point with. This ensures that there is no ambiguity that words alone might have produced, because the tip of the trowel indexes the intended domain of scrutiny which is a small, specific area on the ground. Relating that to the ABE context, it would be essential that participants engage in physical actions such as pointing to draw other's attention to an intended aid.

However not all pointing reduces ambiguity. Goodwin (2003) provides, another example, this time an interaction between Chil, a man with aphasia and his communicatively able son. Chil points to a something from a distance which results in a potentially large domain of scrutiny and this physical action results in confusion. It is only when Chil moves closer towards the intended pointed-at item thus bypassing other irrelevant ones in the process, that the focus of the pointing becomes well-defined and apparent, allowing Chil's son to decipher his message. Bearing in mind the physical positioning of participants in an ABE interview and the semiotic potential of the video recording as a WLD's evidence-in-chief in a potential future trial, it is essential that whatever a WLD is referring to is accurately identified. Ambiguous identification of a body part in a rape allegation for example, could impact a potential future conviction. It would be essential then, for embodied actions in interview, to increase the specificity of what they are indexing.

Sacks et al (1974), first introduced the idea of the recipient-designed nature of talk later corroborated by Hindmarsh and Heath (2000) in their research on embodied interactions in a British Telecom control room. Hindmarsh and Heath (2000) show that individuals produce, time and revise their embodied productions (that included pointing), continually and contemporaneously based on their recipient's responses to the ongoing talk. Individuals are oriented and sensitive to the relevance of their embodied actions and amend their actions accordingly, such as stalling a point to allow a co-participant to approach the relevant domain

of scrutiny before continuing talk. Continually monitoring each other's understanding through their embodied aided actions is essential in accomplishing the overarching goal in ABE interviews.

2.5.7 Placing and showing

However, when the salience of an object needs to be increased, pointing may be displaced in favour of showing a recipient that object (Gerhardt 2019), a practice also described by others as placing (Clark 2003). Clark (2003) explains how placing increases an object's relevance. He draws attention to the difference between pointing and placing by focussing on the intent accomplished by the participant in the interchange. Pointing involves directing a recipient's attention towards an object whereas placing consists of bringing an object into the line of the recipient's current attention and retaining it in position. According to him, placing consists of three phases: positioning the object in position per se, maintaining its position in space and time and thirdly, replacing, removing or abandoning it (Clark 2003: 259), all of which are relevant in maintaining intersubjectivity and effective communication. Therefore, in interview, an RI can modify an aid's salience by bringing it into a WLD's domain of scrutiny, retaining it in that position for a duration or physically removing it from a WLD's field of vision. All these three physical actions would have very different consequences in terms of an aid's relevance as an evidence-eliciting device.

Once an object is shown to a recipient, the two individuals can confirm that intersubjectivity has been established by manoeuvring it in some way (Gerhardt 2019). Showing allows an individual to physically manipulate it (Streeck 2009) which according to Gerhardt (2019), represents greater commitment to interact with it. Gerhardt (2019) maintains that showing of an objects results in it being jointly accessible for longer, facilitating its increased relevance, compared to pointing. Allowing WLDs a greater amount of time to physically inspect an aid's affordances, then manipulate it to answer an institutionally relevant question, will facilitate them to be more consistent with their responses. Ekström and Lindwall (2014) in their research on interaction in craft education, find that the physical action of showing enables individuals to retain intersubjectivity for longer. They give an example of a teacher, who when shown a faulty piece of knitting, is able to inspect it more closely by physically manipulating it, which then allows her to make recommendations for correcting it. Similarly, in order to repair miscommunications in an ABE interview, it will be crucial that specific embodied actions are used in order to establish intersubjectivity in order to identify and clarify targeted miscommunications.

2.6 Summary

This chapter has reviewed the relevant literature on ABE interviewing guidelines (Ministry of Justice 2011) in the context of institutional interactions (Sacks et al. 1974; Heritage and Greatbatch 1991; ten Have 1991; Drew and Heritage 1992, 2006; Heritage 2004; ten Have 2007b; Komter 2013), with the consequent interviewee and interviewer related difficulties experienced by participants (Gudjonsson 1990; Perlman et al 1994; Keilty and Connelly 2001; Milne and Bull 2001, 2006; Cederborg and Lamb 2008; Bull 2010; Antaki et al 2015). IOs in ABE interviews, although deontically responsible for eliciting their points to prove a case are not familiar with atypical communication, however RIs do possess that expertise. Other actions enabling one participant to get another to do something such as instruction giving and proposing were reviewed. Typically, it is a more knowledgeable instructor who instructs a less knowledgeable instructee. However in ABE interviews, it is a WLD who is more knowledgeable about an allegation, but epistemically less knowledgeable about the interview format, communication aids, their affordances and how they should be used.

It is commonly accepted that there is a preference for Self-initiated self-repair (Schegloff 1979) in typical communication. In Other-initiated repair, less specific repair initiators are used first and when those fail, more specific, stronger repair devices are utilised (Sacks et al 1974). This hierarchical ordering of repair initiators is also observed in multiples, where an entire repair episode is divided into smaller sequences, each of which starts with a less specific repair initiator is unsuccessful, a more specific (stronger) repair initiator is

recruited (Egbert 2004). However, all of the current research relating to multiples involve speech only communication unlike these aid-focussed data.

Language brokers, who are RIs in this research, typically assist in repairing communication breakdowns between linguistically less competent users and their more competent conversation partners. Repair in typical language brokering is usually facilitated after an actual breakdown and planning for and implementing practices to avert an anticipated breakdown generally does not occur. RIs on the other hand are institutionally required to assist communication and through their epistemic knowledge of atypical communication, should be able to anticipate possible upcoming difficulties. Overwhelmingly language brokers assume Goffman's (1981) production role of animator and at times, author, but RIs are prohibited to voicing their personal views (Ministry of Justice 2015).

ABE guidance loosely divides communication aids into 3 dimensional physical objects, which could include ordinary objects selected on the interactional and linguistic needs of the moment, and 2 dimensional images. RIs are required to use their epistemic knowledge of atypical communication in combination with their assessment of an individual WLD's personalised communication requirement, to select aids with relevant affordances. Although research on everyday objects used as resources to accomplish practical actions in other professional areas is available (Mondada 2011; Streeck et al 2011; Nevile et al 2014), there is a scarcity of research in legal settings with WLDs with atypical communication. There is also scant research on the interactional and role orientations that are accomplished as a result of a language broker such as an RI being recruited in to the interview. Although Section 30 (communication aids) of the Youth Justice and Criminal Evidence Act was enacted in 1999, there is a lack of empirical research on the effectiveness of their use when used in legal settings.

The next chapter focuses on the methodology used in this research, including the analytical framework used to analyse the data.

3 METHODOLOGY

Having reviewed the relevant literature in chapter 2, this chapter is concerned with the methodology used in this research.

It begins in section (3.1) with reasons for selecting a qualitative approach, a reminder of the RQs previously introduced in Chapter 1 (section 1.4), generalisability and researcher positionality. Next in section (3.2) the analytical framework that was used in the pilot study but eventually rejected is presented. Section (3.3) presents Conversation Analysis (CA), which is the main analytic framework used in this research. That section focuses on sequence organisation, repair, multimodality and its applicability to ABE interviews. Data collection follows in section (3.4), focussing on ethical considerations, sourcing and consent, for both, the interviews which formed the bulk of the data and a survey, which was run in order to corroborate findings with practitioners' perceptions. Section (3.5) discusses data analysis, which includes transcription, conventions and anonymisation. Section (3.6) concludes by explicating the analytical procedure.

3.1 Qualitative analysis

The over-arching, principal RQ that will be addressed in this thesis, to establish whether aids improve the quality of a WLDs evidence, is reproduced here for convenience:

What is the impact of low technology communication aids on the quality of evidence in RI-mediated ABE investigative interviews with witnesses with an LD?

It was subdivided in to three further sub-questions as follows:

1. How are low technology aids oriented to by interview participants (IO, WLD and RI) in eliciting information and what are the sequential interactional

phases during which they are recruited in aided episodes of interaction (repair and planned intervention)?

- 2. What is the contribution of aid-mediated actions involved in pre-request and request-response sequences in eliciting information?
- 3. In what manner do participants negotiate their production roles with the aim of eliciting information and what are the outcomes of using aids in this process?

3.1.1 A qualitative approach

The purpose of this research was to understand the impact of communication aids on WLDs' evidence in a police investigative interview from an emic perspective, the manner in which all participants treated aids as meaningful in their interactions from their points of view and their interpretation of them as resources for action in providing investigation relevant information. The intent of the RQs related to answering "how do" and "in what manner" questions relating to real life ABE interviews and providing information on the "contextual richness" (Yin 2016: 3) of those settings, which are best answered using qualitative means (Yin 2009), questions that a quantitative method would have limited capacity for examining. Quantitative methods have been used to identify and examine the types of communication difficulties experienced by individuals with an LD (Belva et al 2012), perceptions of interviewing officers (Brennan and Brennan 1994) and in categorising the types of strategies used with atypically communicating individuals. However it is this researcher's view (as explained in this section) that quantitative (or mixed methods) have limited ability to explain the complexity of aided interactions of interview participants and the manner in which they orient to aids as tools for talk in ABE interviews.

Denzin and Lincoln (2005: 3) define qualitative research as, "a situated activity that locates the observer in the real world. It consists of a set of interpretive, material practices that make the world visible". It involves making sense of and interpreting phenomena based on the meaning people bring to them. Refining this definition further, Flick (2018: 7) includes the visual modality, which is extremely apt in this research, and asserts that qualitative data analysis can

occur via "talking, listening, observing and analyzing materials, sounds, images or digital phenomena" in order to understand happenings and collective experiences, which in this research relates to participants' orientations to aids. The key points from the above definitions of relevance to this research are the situatedness of the data in actual, real settings, the sense relevant participants make of the phenomena studied and the multimodality aspect of those interactions.

Schegloff (1996) believes a method of in-depth examining without pre-conceived analytical goals, results in a thorough understanding of the data. Thus, this method of "unmotivated looking" (Sidnell 2010: 28) where patterns, concepts and themes in the data evolve inductively after repeated observations and listening without presupposing outcomes a priori (Kennedy and Thornberg 2018; Liddicoat 2011) is the most appropriate method for examining individuals' emic perspectve. Although it is recognised that a purely inductive approach is theoretically impossible because researchers always bring with them their own prior knowledge, pre-conceived theories, lenses and beliefs (Maxwell 2018), a primarily inductive approach would realise answers to the RQs most effectively.

The RQs in this research relate to aided communication, which is a two-way process that does not occur in isolation. It can only meaningfully take place with others, in society. It occurs by looking deeply into participants' realities, the way they respond to each other and their interpretations of in-the-moment actions that are occurring as they view and perceive interactions from an emic perspective. In other words, understanding the way participants interpret and construct their own social and interactional roles in aided interactions was essential in providing answers to the RQs.

More specifically, in terms of the analytical tool required within an over-arching qualitative approach, an in-depth micro analysis of the manner in which aids were recruited in interview, their impact on WLDs' talk (i.e. their evidence) elicited moment-by moment, the way in which WLDs assigned meaning to aids, and the interactions between interview participants (WLDs, IOs and RIs) during the process of aid use were considered essential. Other tools such as interviews, for example, analyse what participants say their orientations are in relation to

a topic, however this researcher felt the outcomes would be more robust and operationally more valid by identifying what participants *actually* believed, and thereby demonstrated through their aided talk. CA was selected as being this systematic, orderly framework that allows an analyst to understand participants' current interactions in the context of prior and upcoming talk, as well as the manner in which they make sense of what they are doing. It is a tool that allows the fine-grained interpretation of rich detail of participants' interactions with each other.

CA developed originally from the broader area of Ethnomethodology which examines how social order is reproduced in and through social interaction by examining "the principles on which people base their social actions" (Seedhouse 2004:3). CA focuses more narrowly on how those principles which people use to interact with, are operationalised using language.

The CA framework was complemented by also conducting an anonymous online survey of IOs' (trained in interviewing WLDs with an LD) and RIs' perspectives of aid use in their practice. However, in keeping with the qualitative nature of this research, a quantitative analysis of the survey results was not planned and therefore not undertaken. It was used to qualitatively enable professionals to describe and explain their attitudes and behaviour in relation recruiting aids in real life situations.

Including WLDs in such a survey was not considered viable due to confidentiality reasons and the risk of re-traumatisation. By drawing on perspectives of professionals in the field in this manner and corroborating those views with the etic or outsider perspective obtained via the primary analysis of the interview data, a richer more complete picture of the analyses was obtained. As Agar (1996) asserts, almost all research is a blend of both these perspectives. Since survey results were not quantitatively analysed, the term triangulating results has not been used in this attempt to cross-validate results of the CA analysis (Morgan 1998). However, relevance was placed on the qualitative comments that survey respondents provided, thereby affording a grass-roots practitioner-based perspective that was considered useful through that process.

3.1.2 Generalisability

In relation to generalisability, Schreier (2018) urges qualitative researchers to reconceptualise the conventional idea which stereotypically relates to the concept of *statistical generalisability*, which usually applies to quantitative research. Instead, in qualitative research, where the data used is relatively smaller, but contains rich detail (Charmaz 2006), it is more useful to consider the concept of transferability, which is to identify whether the findings obtained in one instance and in one context also apply and can be transferred to other instances and different contexts (Lincoln and Guba 1985; Tracy 2010).

Assessing the similarity between the two contexts is essential in making claims of transferability and the ease with comparisons can be made is to provide *thick descriptions* of the first context (Geertz 1973), such as CA is able to provide, to assess how fitting a comparison is. Thick descriptions provide detail of all aspects of the first context, in order to draw transferable concepts from this research to other similar contexts. Stake (1978) argues that this manner of "naturalistic generalization" (1978: 6), where learning results as a product of experience, can often be preferable because they are "epistemologically in harmony" (1978: 5) with a researcher's experience, or in this case, IOs' and RIs' experience, giving rise to patterns of expectations that guide future action. RIs and IOs interacting with WLDs would be able to draw upon the rich detail provided in the analysis to infer parallels with their future practice, thereby enabling findings to be ecologically valid.

3.1.3 Researcher positionality

The bulk of this research was carried out from an external etic perspective as someone who had not been involved in creating the data herself. However as previously stated in chapter 1, the researcher is an RI and one of the interviews in this research was drawn from her work in the field. This insider, emic knowledge of working is viewed by Maxwell (2018: 25) as a "component of the actual process of understanding", thus providing valuable insight into the type of institutional interaction studied here and a "vantage point" (Charmaz 2006: 17) from which rich data could be gathered. A deep professional working

knowledge of the role of an RI enabled this researcher to make sense of indexed references to objects such as aids and their semantic relevance in the context of surrounding talk (Deppermann 2013). It provided a deeper understanding in relation to the process of using communication aids, as well as the possible difficulties experienced by users in the ABE investigative interview context, which is useful in gaining a deeper understanding of the complexities of recruiting communication aids. It must be acknowledged that insider knowledge does not necessarily make this researcher's interpretation of the data any more authentic however it does arguably legitimise a more in-depth analysis of certain aspects of the research and allows other aspects to be given less relevance (Charmaz 2006).

Having argued the advantages of this insider knowledge, it is necessary to acknowledge a possible drawback of a researcher carrying out research in his/her same field of work, or what critics have previously termed observer subjectivity (Bradbury-Jones 2007) or reflexivity (Gibbs 2007b). Varying knowledge bases and assumptions could result in differing interpretations at various points in the research process. However, care was taken in avoiding potential limitations and to ensure that the researcher's transcript was not analysed any less objectively, by the use of an independent coder as detailed in section 3.6.2. Furthermore, the analysis was continuously critically reviewed with respect to the possibility of rival explanations (Brewer 2000:132, Gibbs 2007b).

All data and research design will be explicated in detail in 3.4 and 3.5, however details of the analytical framework that was initially considered in the pilot study is presented next, together with the rationale for why it was then discarded, in favour of CA. A qualitative researcher's methods should be appropriate to the RQs the research seeks to analyse (Charmaz 2006) and if found to be unsuitable should be adapted or new methods developed or sourced (Flick 2018). CA was thus selected as being the most appropriate tool in order to answer the above RQs.

3.2 Pilot study and Story Grammar: Rejected analytic framework

Story grammar (Mandler and Johnson 1977; Black and Wilensky 1979; Johnson and Mandler 1980) was initially considered because of the possible similarity between a WLD's account of their evidence or *story* and aspects of story grammar. Analysis using story grammar involves organising the data in terms of a setting, episode and resolution. The data for the pilot came from a video recorded interview of a WLD being interviewed by an IO, which was later included in the main analysis. An RI facilitated communication and interaction throughout, recruiting low technology aids as part of that process. An unsuccessful attempt at applying the principles of story grammar to the sourced data was carried out.

The *narrative* produced by the WLD in the pilot interview was fragmented and dysfluent, rendering it impossible to apply the principles of story grammar to the data. Breakdowns in talk occurred constantly with subsequent attempts at repair by the participants. Those repairs consisted of aids being incorporated at the same time as talk or at times, instead of talk. Very frequently they were recruited to circumvent a breakdown. The traditional principles of story grammar do not make provision for object (aided) mediated aspects of communication, as repair devices nor as devices to prevent a conversation breakdown.

Additionally, in order for a central theme or global coherence to be recognised, links between elements need to be first identified (Coelho and Flewellyn 2003; Westcott and Kynan 2004) which was unviable with the 2-3 word utterances that the WLD in the pilot produced. Therefore, mapping aided communication on to a story grammar framework proved impractical and unworkable.

An analytic framework that micro-analysed embodied interaction and the incorporation of objects such as aids into that talk was crucial. It was essential that the tool facilitated a moment-by-moment examination that looked beyond the linguistic structures of spoken language (because of the type of data), and one that was concerned with the organisation of social interaction between participants. To answer the RQs, it was important that words in talk were not examined as semantic units, per se but as the "product of the activities being

negotiated in the talk" (Hutchby and Wooffitt 1998b: 14). CA examines talk as a tool that accomplishes social actions (Seedhouse 2004) and allows an examination of how participants construct meaning in the context of preceding and upcoming talk (Heritage 1984c) and therefore slotted precisely into these specific analytical requirements.

CA has been used over the last thirty years to analyse interview data (Button, 1992; Clayman 1992; Grant et al 2016; Greatbatch 1992; Haworth 2006; Heritage 2012; Heritage and Greatbatch 1991; Suchman and Jordan 1990) and was thus extremely appropriate as an analytic tool to examine the data in this research.

Additionally, it has been used extensively to study atypical communication (Antaki 2013; Antaki and Kent 2012; Antaki and Webb 2019; Antaki et al 2007, 2008, 2015; Bloch 2011; Bloch and Beeke 2008; Bloch and Clarke 2013; Bloch et al 2015; Bloch and Wilkinson 2004, 2009, 2011, 2013; Clarke and Wilkinson 2007; Finlay and Antaki 2012; Goodwin 2011; Rae and Ramey 2020; Rapley and Antaki 1996; Rapley et al 1998; Wilkinson 2020). See throughout sections 2.1, 2.3 and 2.4 for review of studies.

In keeping with the aid-mediated data in this research, CA has been widely used to analyse multimodality embodied actions involving objects (Aaltonen et al 2014; Day and Wagner 2014; Ekström and Lindwall 2014; Mondada 2006a, 2011a, 2011b, 2012, 2014a, 2014c, 2014d, 2019b; Mikkola and Lehtinen 2014; Nevile et al 2014; Rasmussen 2017; Rauniomaa and Keisanen 2012; Richardson and Stokoe 2014; Streeck et al 2011; Weilenmann and Lymer 2014; Wilkinson et al 2011). See 2.5 for a review of key studies.

3.3 Conversation Analysis (CA)

CA (Sacks et al 1974), as the most appropriate analytical tool for the interactional and linguistic requirements of the study, was applied within a multimodality framework (Depperman 2013; Mondada 2013), and will be explicated in this section.

3.3.1 Overview

CA was developed in the 1960s primarily by Harvey Sacks, in collaboration with his colleagues Gail Jefferson and Emanuel Schegloff (Sacks et al 1974) and gained repute as an empirical framework for studying talk in interaction over the subsequent years. Its sociological ethnomethodological roots were derived from works by Garfinkel (1967) and scholars such as Goffman (1967). Sacks' interest stemmed from his work on studying calls to a suicide prevention helpline which was when he realised the orderliness and sequential nature of talk. He came to the realisation that studying talk as it occurred in real time was an organised and systematic method of determining and representing social action. By analysing the structural organisation of sequences of naturally occurring talk in interaction, as it occurs on a moment-by-moment basis, an analyst can examine the way interlocutors make sense of prior talk in the process of formulating and delivering their own talk. It provides a mechanism for understanding the way participants take turns, organise their talk sequentially and repair problems in speaking, hearing, and understanding to progress their conversation (Sacks et al 1974; Schegloff et al 1977), which was essential in answering the RQs.

Aspects of CA most relevant to this thesis are considered in turn.

3.3.2 Sequence organisation, turn taking and context

Within CA, all talk is sequentially organised through paired turns (Sacks et al 1974; Heritage 1984a; Schegloff 2007a). After a first speaker speaks, the second speaker is typically silent until the first speaker's turn has been completed, after which the second speaker takes their turn in responding. The second speaker's turn is typically accomplished without an overlap with the first (Levinson 1983) and usually achieved without any gap (Sacks et al 1974). This responsive second turn occurs at a point where the second speaker orients to the prior turn as being complete, at an interactional place where transition is possible and relevant i.e. at a transition relevant place. This turn taking system is thus locally managed, occurring on a turn-by-turn basis (Levinson 1983).

The first and second turns are typically arranged in pairs adjacent to each other i.e. typically referred to as adjacency pairs, and relate to the action that the

turn is carrying out. To give an example, when the first turn's action is a greeting (e.g. "Hello"), the second turn's preferred response is typically also a return greeting (e.g. "Hi"). If the action in the first turn relates to a question (e.g. "Where are you going?"), the preferred response in the second turn is typically an answer to that question (e.g. "home"). Such responses are interactionally *preferred* responses and are linguistically simpler turns (Levinson 1983).

Sequences of talk are dependent on participants' interpretations of the actions communicated in a prior utterance. Current talk shapes following talk and in turn, is shaped by preceding talk, all of which determine the context, such that "talk is context shaped and context renewing" (Heritage 1984c: 242). By responding to talk in participants' prior responses, they are demonstrating their orientation to its context (Drew and Heritage 1992) and therefore its context boundedness or indexicality (Seedhouse 2004) i.e. what aspects of context they are orienting to at any given time.

Turns at talk are organised in an orderly sequence of actions so that "no order of detail can be dismissed a priori, as disorderly, accidental or irrelevant" (Heritage 1984a: 241). The public display of this turn taking organisation which is continuously updated and revised sequentially over the course of an interaction, demonstrates interactants' intersubjective understanding of each other's talk (Heritage 1984a).

By examining these orderly stretches of talk, it is possible to identify what action participants are jointly accomplishing through talk. Thus, as Schegloff states, "sequences are the vehicle for getting some activity accomplished" (Schegloff 2007b: 2). Together, they accomplish the *doing* of some action. In this research, sequences of turns were designed to accomplish eliciting investigation relevant information.

3.3.3 Repair and pre-sequence expansions

When analysing repair, which was reviewed in detail in chapter 2, the roles of both the speaker and recipient of some troublesome talk need to be considered. Additionally, the roles of the participant initiating repair and the one completing it are important. This results in Self-initiated Self-repair, which is typically preferred in interactions (Schegloff 1979), Self-initiated Other repair, Otherinitiated Self-repair, and Other-initiated Other-repair.

When Other initiates repair, it is typically carried out in the form of insert sequences and post-sequence expansions, both of which were reviewed in chapter 2. Repair typically results in a temporary break of progressivity, which is then resumed after resolution of a conversation breakdown (Schegloff 2007c). Repair of breakdowns is overwhelmingly resolved quickly in typical conversations; however occasionally multiple repairs are needed (cf. chapter 2). Repair in these data were carried out via communication aids.

In addition to repair, CA provides for analysing sequences of talk that appear prior to a base adjacency pair that interactionally prepare the participants for that upcoming pair. These pre-sequence expansions are sequences of talk that are type-specific and are related to the type of base adjacency pair. Therefore, a base request-response sequence typically expects a *pre-request* sequence, interactionally preparing the participants for an upcoming request, which according to Levinson (1983), in usual circumstances, abolishes the need for an overt request at the end of that pre-request sequence expansion. In these data, aids were recruited in pre-sequence expansions and they were analysed as episodes of Planned Intervention.

3.3.4 The changing lens of multimodality

When CA was initially developed it was primarily speech-focused, however now it is widely acknowledged that CA encompasses multimodality interactions, where embodied and spoken actions influence and are influenced by each other (Goodwin 2011; Haddington et al 2014, Hindmarsh and Heath 2000; Mondada 2006a, 2011; Nevile 2015, Streeck 2009). Communication is never exclusively speech: it naturally encompasses multimodalities (Kraat 1985, Norris 2006) and according to Stivers and Sidnell (2005: 2), all "face to face interaction is by definition, multimodal interaction". Therefore, embodied interactions too, are orderly and examining their actions permit an emic understanding of participants' orientations towards prior talk from an insider perspective. Just as each utterance in a spoken adjacency pair is shaped by preceding and following utterances, embodied object-focussed actions too, are shaped by talk and conversely talk is shaped by concurrent actions (Gerhardt 2019). Mondada (2019a: 14) refers to sequentiality as the "reflexive transformation of an action", as the response of the recipient of that action causes a re-adjustment of the initial course of action. The key tenets of traditional CA such as turn taking, sequence organisation and repair are also impacted and modified by the timing and juxta positioning of embodied situated practices into on-going talk.

However, those embodied situated practices consist not just of physical actions, but also include recruiting physical objects into the interaction, within a "praxeological local ecology" (Mondada 2019a: 53) so that objects are used as resources in and for interaction (Richardson and Stokoe 2014). Objects shape and are shaped by the interaction, modifying the sequential nature of an interaction because it is influenced and altered to accommodate the presence and relevance of the physical object (Streeck et al 2011; Nevile et al 2014). To observe how participants co-operatively and simultaneously orient to objects and other participants in the environment, Depperman (2013: 3) rightly emphasises when justifying CA as an analytical tool for multimodality interaction, that systematic coordinated practices in two modalities work cooperatively, "where each modality has its place in the temporality of the ongoing production of interactional structure".

3.3.5 Conversation Analysis, relevance to aided ABE interviews and naturally occurring talk

The two relevant phases of the ABE interview for this research i.e. free narrative and questioning (detailed in section 3.6) contain sequences of requests for information and responses to those requests, typically arranged in pairs lying adjacent to each other, where an interactionally preferred turn in response to an IO's request for information is a WLD's semantically relevant answer. It is not the grammatical aspects of speech that CA analyses but rather, sequences of turns and how they are organised in relation to each other (Sacks et al 1974). A key requirement for answering the RQs was a tool that analysed the way objects such as communication aids, when recruited into an interaction, shape subsequent sequences of embodied talk, and are shaped by prior talk. CA provides a framework for analysing the situated multimodal aspects of interactions, that is increasingly seen to be ecologically valid (Bloch et al 2001; Clarke and Wilkinson 2013).

Secondly, because subsequent talk is dependent on preceding talk, analysing sequential pairs of utterances offers a unique insight into a speaker's emic perspective. In other words, in aided interactions, an analysis of successive talk is a reflection on how participants have perceived prior aided talk, including their perceptions of aids themselves, exploring the "why that now" (Schegloff and Sacks 1973: 299) question further. This insider perspective on the way they view aids, would not necessarily be overtly stated, but through talk, it would be foregrounded and made clear. An understanding of participants' perspectives in relation to how they establish intersubjectivity by incorporating aids in talk e.g. how all participants orient to communication aids, would demonstrate how they view that aspect of interaction. Participants' perceptions of aids as objects for communication would be reflected in their recruitment of them as devices to augment talk or replace talk and was therefore extremely relevant to this research. By analysing those aspects of interactions that the participants themselves publicly treat as meaningful, as determined through their sequential interactions, provides strong ecological validity to the conclusions drawn by the methodological framework of CA (Heritage 1984a).

Thirdly, this research needed to be data driven and inductive; a bottom-up approach was essential in examining the impact aids have on communication. It was important that the data determined the way analysis should take place. The data indicated several episodes where miscommunications were identified and repaired by the participants and it was essential to isolate a tool that enabled an analysis of them. Equally, numerous instances of PI were observed, and a mechanism for examining the relevance of these aided pre-sequence expansions and their relationship in eliciting new information from a WLD was crucial. CA provided a systematic, empirical method of analysing both situations.

Lastly, a framework that enabled micro analysis of *real* naturally occurring ABE interview talk in interaction, was required. In response to critics of the naturally

occurring nature of interview talk, scholars make a distinction between naturally occurring activities and naturally occurring talk (Potter 2002; ten Have 2002). CA is interested in the latter. Although an interview is a previously organised activity to talk about a predetermined topic such as an allegation, the interview talk itself *is* naturally occurring. The words themselves are not controlled, preplanned, engineered or rehearsed. Furthermore, although RIs may have planned the communication aids that could be used in interview, the actual talk that is used to support aid usage is unrehearsed, unscripted, and naturally occurring. Additionally, ten Have (2007c) rightfully argues that natural should refer to talk that is naturally occurring, non-experimental and not co-produced or provoked by the researcher. ABE interview talk falls within all of these criteria.

3.3.6 Naturally occurring talk and video recording

Video recording of an ABE interview is a legal requirement and its use is explained to WLDs in terms of that need. As per S27 of the Youth Justice and Criminal Evidence Act (1999), it serves as a witness' evidence in chief and necessarily requires to be a permanent record of their account.

As explicated above, in CA terms, naturally occurring is interaction that would have occurred in that manner even if the researcher and recording equipment had not been present (Higginbotham and Engelke 2013) and video recorded RImediated ABE talk slots neatly into that definition. Participants being video recorded may initially orient to a camera by inspecting, adjusting, or exploiting it (Mondada 2006b), resulting in critics arguing that the presence of recording devices changes its characteristics and the turns at talk are therefore not natural any longer. The argument against this criticism comes from the view that video recording is now so commonplace socially as well as professionally, that participants are easily able to overlook the presence of recording devices, thus maintaining the naturalness of the talk (Mondada 2006b). Laurier and Philo (2006:4) understand that "while the camera is omni-present in the setting, it is by no means omni-relevant" and the initial awareness of the presence of recording devices soon wears off. Speer and Hutchby (2003: 334) assert that recordings should not automatically be viewed as a "negative force" or a "hindrance to interaction". They argue that should participants orient to recording devices overtly, those orientations manifested through talk should be analysed as action. Furthermore, recording devices in ABE interview suites are fixed rather than moving and discretely located on a wall. There is no gross movement that participants could arguably be distracted by. Certainly in the investigative interview, some participants do orient towards the recording equipment at the start of the interview and at times during a break, however in these data when WLDs were engrossed in the two relevant phases (i.e. free narrative and questioning) no reference to any recording devices was made by any of the participants.

The next section explains the how the data was collected to answer the RQs.

3.4 Data Collection

3.4.1 Ethical considerations

This research was designed to comply with the guidelines set out in Cardiff University's *Research Integrity and Governance Code of Practice* as it was at the start of this research in October 2015, as well as guidelines recommended by the British Association for Applied Linguistics in their *Recommendations for good practice in Applied Linguistics*, last revised in 2016. Additionally, legislative principles of the United Kingdom Data Protection Act 1998 (which were in effect at the time of commencing this research) were borne in mind throughout.

As introduced earlier, the data used in this research consisted of RI-mediated IO-WLD investigative interviews, from which 115 episodes of aided interaction were identified. At the start of this research, the plan stated that interviews would comprise the entire data set. With that plan in mind, formal ethics approval for analysis of interview data was applied for and granted by Cardiff University's School of English, Communication and Philosophy's Ethics committee, chaired by the School Ethics Officer in April 2016. See Appendix 2. The documentation assured the Ethics committee that all interviews would be

linguistically transcribed and fully anonymised before the transcripts were removed from police premises and that this researcher would not be interacting with live data at any time.

As a practising RI, the researcher was also in possession of a clear UK Enhanced Criminal Records Bureau check at the time of data collection, now called a Disclosure and Barring Service check.

Having obtained Ethics approval for research on investigative interviews, contact with local police Forces was initiated to source relevant interviews.

3.4.2 Sourcing data and consent: Investigative Interviews

Access to interview data was difficult and the process of sourcing data was convoluted and time consuming.

The researcher contacted relevant officials involved with Learning and Development and Public Protection within 3 local police Forces and only one responded positively. However, while a general interest was expressed by that Force, an initial meeting with officers did not prove successful. The Force representatives at that time were unable to proceed the research further believing they were not the right professionals that should have been approached, but they did suggest contacting a different designated officer in the strategic research department as a point of liaison. Once contact was made with that officer, liaison progressed more smoothly.

To access and use the data from that police Force, a Police Research application form was submitted in 2016, which was approved by the Force. Next, an *Agreement for Data Processing and Preparation of related Reports* was drawn up and signed by Cardiff University and representatives from that police Force. The agreement specified that the video recordings that the Force would be providing were to be used for this study only. These recordings were to be linguistically transcribed on police premises, and could not be copied or modified in any way. The transcripts could only be used in the manner stated in the agreement and specified where they could be stored electronically. All data was required to be anonymised, as was the name of the Force that supplied the data. One interview consisted of this researcher's 'cold¹⁶ cases', thus supplementing her emic perspective on the data.

Consent for use of interview data was obtained from the Force that provided the data. Moreover, typically, processing interviews relating to physical or sexual allegations is considered sensitive data and individual informed consent would need to be obtained. However exemptions are included in the following sections of the Data Processing Act 1998 which are relevant to this study.

- i. Section 29 Point 1 (a): Crime and Taxation: The prevention or detection of crime (Data Protection Act Section 29 1998)
- ii. Section 33 Point 1 (b): May cause substantial damage or substantial distress is, or is likely to be, caused to any data subject (Data Protection Act Section 33 1998)

More specifically, in relation to Section 29 Point 1 (a), the Force believed that this research would be of benefit to future interactions with the public, resulting in a better understanding of how to interact with atypically communicating individuals. This is in keeping with the principle of beneficence, which according to Maxwell (2018: 39), supports "transformative change that is viewed as beneficial by members of marginalized communities". The Force believed that this research would provide them with a deeper understanding of how to interact with vulnerable WLDs.

Secondly but more relevant to this research, is Section 33 Point 1 (b). The Force was concerned about the probability of re-traumatisation and the negative impact of re-awakening memories that WLDs had since suppressed should they be contacted in their recovery from trauma. Re-traumatisation is a "conscious or unconscious reminder of past trauma that results in a re-experiencing of the initial trauma event. It can be triggered by a situation, an attitude or expression, or by certain environments that replicate the dynamics (loss of power/control/safety) of the original trauma" (The New Social Worker 1994-2020: 1). The Force assessed this process as being high risk. It weighed up the

¹⁶ Cold cases are those which are no longer active in the Criminal Justice System because they have either been marked 'No Further Action' or have gone to trial and now filed.

benefits of this research as being of substantial public interest, benefit, and advantage against the negative aspects of likely re-traumatisation of WLDs and did not consider the risk of re-traumatisation warranted.

Dingwall (2008) questions overzealous ethical viewpoints and urges ethical committees to consider the advantages of research that contributes to a better society over the harm that might be caused by its absence. The Force decided against supplying WLDs' details to the author in relation to the interviews that they provided, and decided against contacting them for consent itself. This did have the limiting consequence that the author had no case history of the WLDs and thus had no knowledge of how familiar they were with the aids adopted in the interviews. Furthermore, identifying and contacting individual RIs and IOs who assisted communication during the interviews was not practically possible and that process, had it been attempted would be unequitable, considering the decision not to contact WLDs. The Force judged the process of anonymisation of interviews as being preferable and of lower risk to individual WLDs. It asked for regular general updates to be provided to them which could inform future policing policy in relation to communication aid use and RIs and this is reported on in the final chapter. These considerations are consistent with Heggen and Guillemin's (2012: 472) use of the concept of 'ethical mindfulness', they urge researchers to develop a situated perspective on ethical decisions that they believe should be taken in the context of a specific situation rather than as an abstract concept.

3.4.3 Sourcing data and consent: Survey

Once analysis of the interviews was complete, a second application to the Ethics committee at Cardiff University's School of English, Communication and Philosophy was made in 2019 to carry out a survey of IOs' and RIs' general perceptions of the role of communication aids in investigative interviews with WLDs. Ethics approval was received and a questionnaire was designed. See Appendix 3 for ethics approval paperwork (Form A Fast Track approval), as well as a copy of the questionnaire (Appendix 4) used in the survey and briefing document. The views of service users (IOs and RIs) in relation to their

experiences and practice regarding aid use with WLDs were requested. An online link to it was emailed to this researcher's contact in the police Force, for them to distribute to relevant IOs. A link was also posted on the Registered Intermediary Online forum (National Crime Agency 2002-2017) for all practising RIs to access and complete. Informed consent for the survey was received from all 21 IO and 21 RI participants via the online link.

A basic quantitative analysis was automatically created by the online analysis tool used by the university in the form of bar charts as well as a compilation of service users' free-text comments. However, although that automatic analysis was available to be used, only the qualitative comments were used to complement and compare results of the CA qualitative analysis, and therefore its reporting in section 6.6 is presented bearing those purposes in mind. No additional quantitative analysis was planned and therefore none was carried out.

3.4.4 Interviews and real video recordings

The data set consisted of seven video recorded interviews where an adult WLD was interviewed by an IO in relation to a physical or sexual allegation, and included the assistance of an RI throughout. Each interview was carried out by an IO following interviewing guidelines as set out in the ABE guidance (Ministry of Justice 2011) and all interviews involved the use of low technology communication aids.

It was essential that an analysis of real interactions in actual RI-mediated interviews were used to attain results that were representative of what occurs in practice. The representativeness and ecological validity of results obtained from analysing experimental data in terms of the interventions needed in real life are "limited" (Norén et al 2013: 2). Laboratory studies that simulate an investigative interview would give a sense of what might happen and not necessarily of what does happen.

Additionally, Levitt and List (2006) assert that unlike laboratory experiments in the *physical sciences*, extrapolation of experimental findings of *human behaviour* beyond the laboratory cannot be carried out in a similar manner. Experiments conducted in a laboratory require conditions to be controlled and therefore it is difficult to generalise laboratory results to settings other than close approximations of similar laboratory conditions (Robson 2011). This would be problematic in relation to investigative interviews, as differences between WLDs' linguistic abilities due to etiological variables, IOs' understanding of language and communication and the range of crimes investigated vary vastly (Fisher 1995). Deducing conclusions about human linguistic behaviour can only be accomplished by examining real life happenings such as real video recordings of interviews.

One disadvantage of using real data, such as being unable to manage variables (Rowley 2002) was not considered greatly relevant here because such variability was more akin to real-life scenarios (as stated above) and therefore using real interviews simulated actual practitioner experiences and would operationally be of more benefit.

A further advantage to using real video recordings is that they permit data to be repeatedly scrutinised in detail, "enabling access to the fine details of conduct and interaction that are unavailable to more traditional social science methods" (Heath et al 2010: 3). Video affords access to interaction as it occurs, in real time, and provides opportunities to record the use of "tools, technologies, objects and artefacts" (Heath et al 2010: 6) in its "material environment" (Mondada 2019a: 49) or communication aids in this research, as they are introduced and recruited by participants. They allow recording of the participants' interactions as a continuous flow of activities, each of which are meaningful in relation to the prior (Mondada 2008). For the above reasons, it was essential that real video recorded interviews were sourced and used in this study.

For video recordings to be analysed most effectively, Mondada (2006b) recommends analysts consider three aspects in their examination. She asserts that it is essential that firstly *time*, secondly *participation frameworks and interactional space* and thirdly *multimodal resources* are recorded accurately. In relation to time, she recommends that a video recording includes the entirety of an interaction, including its openings and closings, so that the temporal features of that complete interaction are captured. Mondada (2006b)

additionally urges analysts to record the entire physical space that multiparty participants interact within, so that "artefacts and tools manipulated by participants and their dynamic movements", together with interactions between non-speakers are captured accurately (Mondada 2006b: 5). Lastly, she asserts that the third feature of multimodal resources such as language, gaze, gesture, body displays and facial expressions should be recorded within courses of collective multiparty action, while they are "interactively and reflexively constructed moment-by-moment within the contingent unfolding of practices" of the interaction (Mondada 2006b: 6).

All seven interviews used in this research were recorded in their entirety, thus complying with Mondada's first aspect of video recorded data, as was her second aspect. The entire physical interview room was captured on camera as a picture-in-picture image to be ABE-compliant, and therefore all interactions (spoken as well as embodied) by non-speakers were visible to the camera on all occasions.

However, all the video interviews used in this research were made and recorded by the police Force. They were created for the purpose of solving a real, alleged crime. Using them for research was secondary and incidental to the primary purpose of law enforcement. The reuse of these data for a different purpose and to gain a different perspective as Corti's (2018) *secondary data*, presented the researcher with practical matters. For example, no consideration was given by those making the recording at the time of the interviews, to zoom in and obtain a close-up of WLDs' face. Although it was possible to identify head orientation (and assume gaze fixation) by noting gross head movements physically angled towards something, depending on the seating arrangements during an interview, recording of glances, small gaze shifts, eye contact and facial expressions was not.

Furthermore, although specific resources such as communication aids that WLDs were manipulating were visible and therefore transcribable, close ups of certain minute and more subtle aspects of communication aid use did not permit reading of RIs' writing of some dates and words¹⁷. Other more distinct and readily-

¹⁷ All such in-interview created aids are considered exhibits and are collected and retained by the police in their case files after the interview has been completed.

distinguishable aspects of communication aids were readable with other interviews, such as coloured pictures of a happy/sad face on a laminated strip of card, drawing of a Christmas tree, or larger black and white line drawings and cut-outs of a human figure. Although the video recordings were not recorded by professionally trained video photographers, all interviews were of a standard judged sufficient for use by the Crown Prosecution Service. Interviews ranged in length from one hour to two hours. They were all cold cases where 'no further action' was registered against them by the Force.

3.4.5 Sample size

Qualitative research inevitably raises the issue of sample size (Schreier 2018). According to her, RQ-related factors such as sourcing enough information-rich samples that are relevant to answering RQs as well as practical factors such as availability of data, are determiners in qualitative research. The size of the sample therefore "should not model itself on quantitative standards of 'the more, the better'" (Schreier 2018: 90). In realising the information-rich nature of the data, she urges qualitative researchers to consider the criterion of saturation which relates to stopping sampling once inclusion of new cases does not lead to provision of further concepts.

i. Saturation

Types of aids used and the way they were recruited and participants' roles in aid-focused interaction emerged inductively from the initial interviews. Transcription was viewed as a "constitutive part of the empirical research process" (Ayaß 2015: 508), allowing the author to extract some initial conclusions early on in the analysis, and identify themes against which any new themes could be cross checked, and more interviews sourced and transcribed in "an iterative cycle of data collection and analysis" (Kennedy and Thornberg 2018: 54). In other words, results of initial analysis formed the *grounding* for the need for further data collection (Gibbs 2007a). A Grounded Theory approach presupposes that a theory is formed inductively, through recurrent analysis of data, rather than from a priori reasoning (Charmaz 2006, Glaser and Strauss 1973). This approach formed the basis for the data collection-analysis cycle recruited in this research. A pattern in communication aid use began to emerge, resulting in a point in time where no newer themes were being observed, demonstrating a saturation point, necessitating no new interviews.

ii. Availability of recordings

A further factor that was considered in selecting sample size related to the availability of video recorded interviews. As mentioned earlier in this thesis, the researcher is also an RI working in the Criminal Justice System and a priori knowledge of it was of benefit. Knowledge of the systems and processes involved enabled her to narrow down the data requirements more concisely to use language and phrasing that was accessible to colleagues in policing. As the police research proposal required a fixed number of interviews to be specified, an aimed-for number of ten was aspired for.

Some interviews were identified by the Force but many of the cases identified by them could not be used because despite clear data specifications in the research proposal, some of the DVDs offered did not involve the use of communication aids and/or RIs. Cases that were identified by the researcher using contacts within the RI world, were provided to the Force but they could not be sourced because of unknown, unspecified Force-related reasons. Eventually seven DVDs that matched the specifications given were located and used.

iii. Range of case type

Data analysis co-occurred alongside data collection. During this process, the heterogeneity of participant personalities, allegations, participants' communication styles and language profiles of WLDs was recognised and realised as being specific to each interview. It would be impossible to control for the effects of all the variables in the data set to enable it to be more homogeneous as there would be as many case studies as there were crimes and WLDs possible. It would be impossible to control, regulate or standardise the type and nature of crime, personalities of interview participants, officers' perceptions of the *points to prove* in the investigation (thereby impacting the content of the interview), type and timing of communication aid used in interview.

Given the difficulties encountered in sourcing data, together with the realisation that consistent themes had emerged, resulted in a decision that the amount of data already collected was substantial and no new interviews would need to be sourced. A total of 115 episodes of aided interactions were identified as a sizeable and enough in order to answer the RQs posed by this research and they formed the core content for analysis.

3.4.6 Participants and in-interview physical positioning

i. Participants

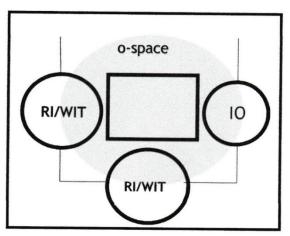
The participants involved in each video recording included an IO, an RI and an adult witness with a previous diagnosis of LD. The diagnoses of LD were not corroborated by the author, nor was the degree of LD, the aetiologies and history of prior aid use. This study is not related to the type, degree or cause of LD and, therefore, it was not essential to probe these areas during selection of the data. It was sufficient to have confirmation from the police that the diagnoses existed and written notes that accompanied the DVDs all stated that an LD diagnosis existed. This manner of assurance from the police that the diagnoses were correct was accepted at face value.

All WLDs were interviewed about alleged crimes relating to serious physical or sexual assault, and the individual charges brought by the Crown Prosecution Service ranged from common assault, sexual touching to rape. The focus of the study is on change in quality of evidence and not on the nature of the crime itself, therefore being further selective in choosing interviews was not considered to be needed.

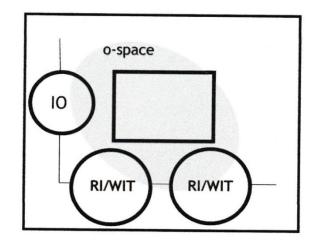
ii. In-interview physical positioning of participants

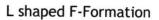
All participants in these interviews typically sat around a table. At the start of the interviews, the table remained free of communication aids but during the interviews, they were made available and at times were retained on the table in between the participants. The in-interview physical positioning of participants has been schematically represented in Figure 3.1.





Rectangular F-Formation





This typical positioning is in accordance with Kendon's (1990: 209) F-formation, which he describes as the physical positioning that results "whenever two or more people sustain a spatial and orientational relationship in which the space between them is one to which they have equal direct and exclusive access". They thus create a participation framework such that the work space created between them, the o-space, is the area within which they generally direct their attention and manipulate objects. All positions were maintained throughout the interviews, cooperating and behaving in a way so that the o-space was preserved, thus enabling everyone to see and manipulate the aids while keeping them visible on camera which is a requirement of ABE interviews.

The WLD, IO and RI typically seated themselves in either a rectangular or L-shaped arrangement, thus sitting on different sides of a rectangular or square table. Alternatively, the RI and WLD sat on one side of the table with the IO on the 2nd side of this table, in an L shape. When a WLD supporter was present in interview 3, she sat next to the WLD but the o-space between the IO, RI and WLD continued to be maintained.

The F-formation was suspended by the IO when an interview break was taken. In contrast, the RI took responsibility for the introduction or removal of communication aids from the interactional o-space. Afterwards, the other participants oriented to the newly displayed o-space. Maintenance of such an F-Formation system allowed and facilitated mutual monitoring of embodied action between all participants, and in these data enabled communication aids to remain the focus of all aided interactions.

3.5 Data Analysis

3.5.1 Transcription

The video recordings were accessed at three separate venues: 4 at a central police station, 2 at the Force headquarters and 1 at a different police station in another part of the Force area. They were all manually transcribed by the researcher and the anonymised transcripts were stored on an encrypted memory stick, the researcher's password protected laptop and the university's secure server. No person or Force identifiable details were stored anywhere, in any form, at any time.

As the Agreement for Data Processing and Preparation of related Reports stated that the pre-recorded police video recordings could not be copied or modified in any way and transcription needed to take place on site, it was not possible to use software packages to facilitate transcription of the recordings, although alternate ways of using Elan, Transana and NVivo were investigated but then rejected as being unviable.

A paper version of one police transcription was provided in relation to one of the cases provided by the Force. However, police interviews are transcribed by individual police officers with no formal training in linguistic transcription. Those transcriptions are generally completed for the purpose of eliciting an IO's points to prove a case and not for the purpose of linguistic research. Police transcripts only cover spoken communication, and since it is assumed that an ABE interview will be played on court, only a very general, unspecific reference to use of aids is made. As this study analyses the focussed use of communication aids, resulting embodied actions and their impact on change in quality of evidence in real life crimes, it was essential that accurate linguistic multimodal transcriptions were made, where the sequential implicativeness of embodied actions were clear during the process of transcription thus informing the analysis (Charmaz 2006, Mondada 2007). Furthermore, all electronic versions of police transcripts are

centrally stored on their internal intranet systems and could only be downloaded in a non-modifiable pdf format. Therefore, although requested at the start of the research, this researcher did not insist on the Force providing further copies of transcripts in relation to the other cases.

3.5.2 Transcription conventions

Historically when CA research only involved spoken audio recorded data, the CA transcription system initiated by Jefferson in 1974 was unanimously used (Jefferson 2004). However, over the past 30 years or so video recordings have become very commonplace in multi-modal analysis from a CA perspective (Deppermann 2013; Ekström et al 2009; Heath 2016; Heath and Luff 1992; Mondada 2006b, 2008) but no single conventionally agreed-upon transcription system relating to visible embodied conduct exists (Hepburn and Bolden 2017a; Nevile 2015).

The shift from audio to video recordings is more than simply the need to transcribe a larger number of data: the data themselves are wholly different (Ayaß 2015). Since visible embodied conduct involves infinitely more dimensions than speech alone (e.g., physical body movements, gesture, and object manipulation), more than one of which can occur simultaneously (Mondada 2008) a transcription system that accurately records all that conduct would necessarily include all those dimensions. Transcribing embodied conduct allows "the closest resemblance of 'reality' that can be disseminated" (Jenks 2018: 119). A dilemma then exists in relation to embodied interactions, regarding how much detail should be included to retain its fidelity without the transcript becoming overwhelmed with symbols such that its readability is compromised (ten Have 2007c; Ayaß 2015; Hepburn and Bolden 2017a; Jenks 2018). The Agreement prohibited still or moving image copying to be carried out of the video recordings, and thus photos to illustrate and add relevance to spoken transcription was not possible, as has been done in other CA research elsewhere (Heath and Luff 1992; Heath 1997; Streeck et al 2011; Mondada 2014b).

Higgenbotham and Engelke (2013) recommend analysts frequently revise, refine and improve upon their initial rough transcripts in order to ensure as much accuracy as possible, and this principle was followed. However, since transcripts are created by researchers and are therefore their theoretical constructs, they are never fully objective (Jenks 2018) and the "logocentric" (Ayaß 2015: 512) nature of their presentation can result in variability (Mondada 2007). This is a limitation accepted here given that no other could view the unanonymised data. Moreover, Hepburn and Bolden (2017b: 101) assert that "no transcript of visible conduct however detailed will amount to a complete record of a video-taped interaction" where visible conduct and embodied actions occur simultaneously with talk. However, they urge researchers to make every attempt at accurate multimodal transcription. Jenks (2018) warns of the difficulties with entextualisation, such as decisions regarding how much prosodic and vocal details to be included, marking speech including dialectal variations and where to place pauses in interactions, the relevance of including some body movements. According to him, transcription description should consider readability (reflecting the needs of the intended audience), granularity (determining how and why certain features of embodied interaction are represented), accuracy (faithfulness in representing the data) and research agenda (Jenks 2018: 126). Since the data in this research involves the possibility of communication aids being used in conjunction with or instead of spoken talk, it was crucial to identify a system that provided for transcription of those relevant details.

Mondada (2014b) had developed a system that allowed transcribing of multiple relevant multimodal details that participants orient to, in accomplishing their actions (Hepburn and Bolden 2017a). Embodied actions typically consist of three parts: a preparation stage, where the body part (such as a hand) begins its movement, the stroke, i.e. the action itself, which is the main physical action that a recipient interprets as the gesture, and the return to rest movement (Streeck 2009). Mondada's (2014b) system enables physical actions that are mobilised in relation to other embodied or speech actions to be transcribed, at the start of their physical action, when they reach their climax and are held, and then when they are then withdrawn (see Appendix 1). Temporality in relation to other concurrently demonstrated embodied or speech actions and the sequential nature of talk-in-interaction are both efficiently provided for,

with this multimodal transcription system. It was considered that Mondada's system would be appropriate for use here.

However, in relation to the data in this thesis, specific attention was required in relation to communication aid use, which was not provided for in Mondada's (2014b) convention. Therefore, each interview was manually transcribed using her system, but with an additional amendment to incorporate communication aid use. This amendment involved an additional line to the already provided for lines involving speech and embodied actions, every time communication aids were used. This additional line involved a superscript A in relation to the participants, to denote the use of aids, as well as to any aided action involved. Names of participants who were speaking were typed in capitals (e.g., Witness with LD = WLD, Interviewing Officer = IO, Registered Intermediary = RI) while names of those carrying out physical embodied actions were typed in lower case (e.g. Witness with LD = wld, Interviewing Officer = io, Registered Intermediary = ri). Additionally, participants engaged in aided actions were denoted by a superscript A against the relevant participant (e.g. Witness with $LD = wld^A$, Interviewing Officer = io^A , Registered Intermediary = ri^A). See Appendix 1 for details.

3.5.3 Anonymisation

Names of all witnesses were replaced by the word WLD but names of suspects (who happened to all be male) were replaced by randomly selected common male names for ease of reading. Names of the other people involved in interview talk were replaced with fictitious randomly selected names to maintain a sense of realism when reading the interview excerpts in the analysis, rather than codes or letters. Rock (2001) cautions researchers against believing that simply removing names of participants ensures anonymity and with that caution in mind, other geographical (e.g. place names) and person-centric details (e.g. names of care homes) were also be removed. However, removing place names runs the risk of decontextualising the data (Nespor 2000), but to maintain a sense of realism, they were replaced with other place names that were chosen at

random unless phonetically linked to preceding or upcoming talk, in which case phonetically similar fictitious place names were substituted.

To maintain a sense of authenticity, the gender of WLD participants were retained. Only relevant sections of the interview, later identified as the free narrative and questioning phases, were used in the research, thus participant, location and Force identity and confidentiality were always maintained. As a result, the likelihood of harm coming to any participant was extremely low.

Following a primarily inductive approach in studying the data, where themes and concepts would emerge from the data, this researcher initially transcribed the interviews in their entirety as a first rough draft, as has been recommended by researchers previously (ten Have 2007c; Hepburn and Bolden 2017b). Furthermore, no previous studies were available to set the precedent in practice, and it was therefore not possible to anticipate what aspect of the transcription might be of importance at that point. Although this was a laborious task, it facilitated the researcher to develop a sound knowledge of the material and having done so, facilitated a decision to be made in relation to detailed multimodal transcription which was then only carried out in the free narrative and questioning phases of each interview.

This study does not focus on critically examining pauses or the timing of RI intervention after a pause or silence, primarily because it was not possible for computerised systems to be used with these data and manual use of a stopwatch would not offer an accurate reading thereby resulting in no additional value added to the transcript. Consequently, it was decided that all pauses and silences would be recorded in intervals of 0.5 seconds for presentation of the data only. As Ochs rightly stated, a "transcript should reflect the particular interests - the hypotheses to be examined, of the researcher" and transcription in this study was carried out bearing this principle in mind (Ochs 1979: 178).

3.6 Analytical procedure

The heading of this section is somewhat misleading because it implies that analysis was carried out after data collection. As noted previously in this chapter, this was not the case. Analysis continued contemporaneously with subsequent sourcing and collecting of interviews, as well as transcribing of them (Gibbs 2007a). In an inductive approach, where patterns and themes evolve as a result on "unmotivated looking" (Hutchby and Wooffitt 1998a: 94), transcription informed the analysis which in turn informed further analysis. The interplay between data collection and analysis facilitated a growing understanding of emerging themes thus shaping the type of further data collection to be carried out as well as sources of these data (Gibbs 2007b, Kennedy and Thornberg 2018). This practice supported an inductive approach which, as previously stated, was the method considered most effective in answering the RQs.

The three research sub-questions were analysed as follows:

- 3.6.1 Identification of repairs and Planned Intervention
 - i. First, the free narrative and questioning phases of the ABE interviews were identified.
 - ii. Next, all conversation breakdowns that occurred within those phases were identified using the following criteria:
 - a. The occurrence of silence in the next speaker's turn (Sacks et al 1974, Schegloff et al 1977).
 - Next speaker's response did not semantically relate to previous speaker's utterance, indicating a "perceived lack of 'fit' between that turn and its prior sequence" (Drew 1997: 30)
 - c. Next speaker directly indicated in their talk, the presence of some prior miscommunication or an inability to provide follow-up communication.
 - iii. The first part of the adjacency pair involved in that breakdown was identified as a *request* for information and considered the start of that aided episode. The point at which a successful *response* was elicited marked the end of that *repair episode*. The criterion for an episode of repair to be judged successful depended on whether the participants

treated the repair as having resolved that breakdown thus eliciting a semantically relevant response.

- iv. Patterns of repair in the trajectory of each episode were noted, including expansion sequences (insert, and post-sequence expansions) (Schegloff 2007d) and the sequential interactional phases during which aids were recruited were analysed. Any physical object (such as a mannequin, picture, hand¹⁸ etc) that was oriented to by the participants as representing a non-present concept (e.g. person, event, place etc) was considered an aid.
- v. Following that, *episodes of PI* that occurred within the free narrative and questioning phases of the ABE interviews were identified using the following criteria:
 - a. Overt spoken or embodied (e.g. pointing to or showing) reference to recruiting an aid by any of the participants
 - b. An episode of aided interaction whose interactional goal was not repair (although there could be subsequent episodes of repair within a single episode of PI).
- vi. The line in which reference was made to an aid either in talk or via embodied action was considered the start of an episode of PI. An episode of PI was considered complete when talk no longer focused on the topic at the start of the episode and topical coherence ceased. If an episode of PI also contained repair, as long as the overarching episode was topically consistent, it was considered PI.

At times separate episodes of aided interaction followed aided repair after completion of the topic that the episode of repair involved and after a new topic was introduced and covered. When these new aided episodes occurred, even though they might at times touch upon a previous topic dealt with in an episode of aided repair, they were considered PI, since

 $^{^{\}rm 18}$ Identifying a WLD's real body part involved in an allegation was therefore not an aid, as it did not represent something else.

they did not involve any repair in that specific episode. Touching on previous topics is not uncommon in ABE interviews and not necessarily due to misunderstandings. IOs are reminded to recap previous information elicited in interviewing guidance, to confirm their understanding of a WLD's account but also as a tool to elicit further information (Ministry of Justice 2011). A WLD's inability to remember something was treated by participants as a genuine memory difficulty and therefore aided attempts to retrieve an answer were considered PI and not repair.

- vii. The trajectories of all episodes of PI, including their constituent interactional phases were examined in detail. Those sequential phases during which aids were recruited were analysed.
- viii. Participants' orientations to aids as repair devices after a conversation breakdown were documented and analysed, either as a first or second course of action. Aided interactions were focussed on and their constituent actions involved in each aided episode were identified and documented on a spreadsheet (cf Appendix 6A).
- ix. The type of information elicited was recorded on the spreadsheet.

3.6.2 Independent Coder

To minimise researcher bias (Yin 2009), the service of an independent coder¹⁹ was obtained, as previously stated. Precise instructions were written out in terms of identifying conversation breakdowns, repair, and episodes of PI. This researcher provided typed examples and then thoroughly explained the procedure verbally in a face-to-face meeting before she started work on coding. There was overwhelmingly an agreement between this researcher and the coder on occurrences of breakdowns and PI. There were a handful of occasions when discrepancies occurred relating to whether aided episodes should be considered

¹⁹ The independent coder was a qualified Speech and Language Therapist (degree in Linguistics and Language Pathology), as well as a Ministry of Justice (England and Wales) trained Registered Intermediary with many years of experience working in these fields. Her clinical specialism was LD, having worked for several years in clinical and education (mainstream and special schools) settings.

repair or PI. A 3rd coder²⁰ was consulted on these occasions and after detailed discussion, a resolution was reached.

- 3.6.3 Participant roles and aids as augmentative or alternative devices
- i. IOs', RIs' and WLDs' participant roles were scrutinised in relation to each other within the context of Goffman's (1967) participation framework. Chapter 2 explicated Goffman's production roles in detail as Principal, Author and Animator, as the individual whose thoughts are portrayed, the one who composes the sentiments behind words voiced and the voice box of words, respectively. The interactions between participants were examined and their inter-dependence noted. The RI role in the context of a language broker was examined and contrasted with that of an interpreter.
- ii. Next, the way aids were used in conjunction with speech was then analysed. They were considered to augment speech when they were used *in addition to* a spoken attempt to answer the IO's information-seeking request in a particular episode. Aids replaced speech if their use occurred *instead of* a spoken word or phrase that would have answered the institutional question to which the response related.

3.6.4 Gradual Shift continuum

i. Finally, the points during each interactional phase, where aids as repair initiators were recruited was examined, to determine reasons why they might be recruited in addition to or instead of speech. In other-initiated spoken repair, as reviewed in chapter 2, less specific repair initiators are recruited first and when they are unsuccessful, more specific initiators are used (Sacks et al 1974; Schegloff 1979).

²⁰ The third coder was the researcher's PhD supervisor who is a Reader at Cardiff University with many years of experience in research and teaching.

No similar aid-mediated typology exists in relation to aided repair. However, multimodality communication has been presented in *The Routes for Learning Gradual Shift* from concrete to abstract continuum (Welsh Assembly Government 2006)²¹ in work on individuals with severe LD elsewhere. See Fig 3.2. This figure presents types of communication, including aided systems, on a continuum from concrete to abstract. Tangible items that can be seen, manipulated and felt, i.e. those whose

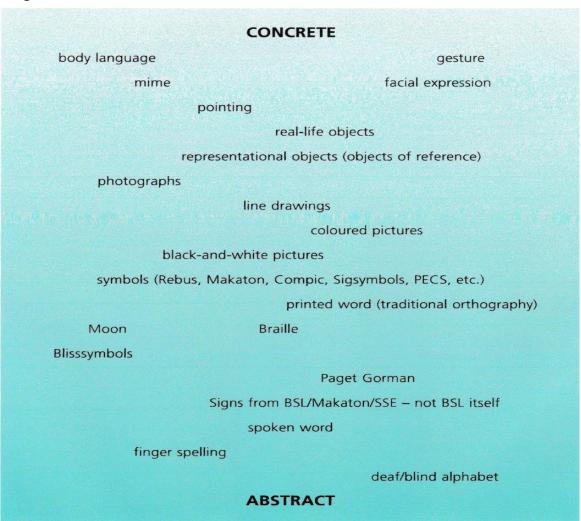


Fig 3.2 Gradual Shift continuum

referents are animate or inanimate are considered concrete (Zhao and Macaro 2016) and are located closer to the top end of the continuum. Their animate or inanimate nature enables them to be more easily

²¹ Permission to use this image in this work granted by Pavilion Publishing on 20-09-19. Reprinted from Park, K. (1997) in Craft, C. and Downs, C. (eds) Sex in Context: strategies and safeguards relating to the sexuality of children and adults with profound and multiple impairments. Brighton: Pavilion Publishing.

understood and their meaning processed. They are definite and visible (e.g. real objects) and actions such as pointing, index actual real objects, eliminating ambiguity and increasing specificity. For this reason (i.e. because of their increased specificity, tangibility and concreteness), in this research, when used as devices to repair breakdowns, they were considered to be strong.

On the other end of the continuum, lie abstract communication systems such as the spoken word and manual signing (Makaton, Paget Gorman, British Sign Language and Signed Supported English). They are Peirce's (1893-1913) symbols (cf Section 2.5), as signs²² that are arbitrarily linked to certain concepts. Zhao and Macaro (2016) define abstract words as those whose referents are notions, perceptions and traits, i.e., abstract refers to an entity that is not tangible. Both signing and spoken words are symbols for the actual real item which may or may not be present in front of the user. Although they are kinaesthetic and auditory representations of the actual item respectively, they do not resemble the visual image of that item in any shape or form.

The recipient needs to be a mature language user with enough working auditory memory to remember and understand what the spoken word or manual sign symbolises. Unless an individual has the capacity to understand that a certain hand shape represents a piece of furniture that can be sat on, or that the spoken word represents the concept of 'chair', it is not possible to understand its meaning. Manual signing is technically an unaided system and therefore it is outside the scope of this thesis, which is solely concerned with low technology aided systems.

In relation to speech however, the recipient is therefore required to understand that an apparently random combination of heard sounds represents a concrete, tangible item. When used as repair device in the context of communication as per the *Gradual Shift* continuum, the

²² The term 'sign' is referred to in the context of Peircean conventions. Manual signing refers to a systematic manner of using hand shapes to convey messages such as in British Sign Language, Makaton etc.

abstractness, relative ambiguity and unspecificity of speech lends it to being considered weaker.

Pictures and symbols that represent actual items and concepts, that are likenesses (Peirce 1893-1913), of real objects and concepts lie further away from the concrete end of the continuum and towards the middle of the range on the *Gradual Shift* continuum. To explain further, as per Peircean conventions, a picture of an item less closely represents a real object (concrete and highly specific, top end of the continuum) than the real tangible item itself (cf section 2.5). It is easy to understand the concept of 'chair' when someone sees the actual object and when their attention is drawn to it by a speaker indexing that item by pointing to that piece of furniture in real life situations than by being presented with a picture of the chair. Although a picture of a chair is highly iconic of a real chair, it less closely represents a real chair than the actual item itself. Therefore, iconic pictures of objects lie further away from concrete real objects on the *Gradual Shift* continuum but not as far down the continuum as abstract spoken words.

Participants' orientations to the relative strength (specificity) of aids was considered in the context of Schegloff's typology and the Gradual Shift continuum. The way participants increased the specificity of the repair devices they recruited was analysed.

ii. Extensive field notes and memos to self were kept throughout the process of data gathering, transcription and analysis. A conscious decision was made not to repeat excerpts to present a rich spread of examples to illustrate the analysis. At times, due to the length of the excerpts, which would distract from the focus under consideration at the time, some lines were not reproduced, especially if they were not relevant to a particular point being argued at the time²³. Representative excerpts were chosen based on how well they exemplified each point and were extracted from either repair or PI, as no relevant differences in their presentation were identified. As there were more than twice the number of episodes of PI

²³ See separate Appendix 7 for full transcripts.

than repair, there were more excerpts extracted from PI to illustrate arguments in the analysis.

Images of aids used as legal exhibits were not disclosed to the author as they formed part of the evidence, hence were confidential and restricted material and not included in the *Agreement* with the Police. However, simulations of those aids have been reproduced in the analysis chapters, taken from the author's field notes during the process of transcription, and when commercially produced coloured pictures were used, those simulations were made using her own personal Communicate-In-Print licence.

3.6.5 Quality and the Youth Justice and Criminal Evidence Act (UK Parliament 1999)

Although the Act links 'quality' of evidence to completeness, coherence and accuracy, definitions of the same, as stated in chapter 1, are legally unspecified. To link the results of the linguistic analysis with descriptions in the Act, the first of the three terms namely *completeness* has been considered in this research to mean participants orienting to WLDs' communication as being sufficient in answering an IO's request for information. In other words, it involves being able to communicate as much possible information that a WLD intends to convey, using whatever means they prefer, a point returned to in chapter 7.

The legal explanation of *coherence* consists of "facilitating the type of answers that address the questions put to the witness" (Ministry of Justice 2011: 4). Therefore, in this thesis an answer that is aligned with the intent communicated in a question is considered to fulfil the criteria of coherence. Responses that semantically relate to the question that has been asked correlates with the way it has been used in the Act. Therefore, a question designed to elicit information on an event that has happened, if it succeeds in facilitating information on the events in that allegation, would be fulfilling the Act's description, and is returned to in chapter 7.

Lastly, in this thesis, *accuracy* is taken to mean how closely aligned a WLD's actual communication is, to what the participants understand the WLD to have communicated. In other words, accuracy is not equated with the truthfulness of an answer because the truthfulness of any response is knowledge that only a WLD possesses and cannot therefore be measured reliably as access to that information is not in the public domain. Accuracy here, relates to how close a WLD's actual answer is in relation to its intent, which is assessed by the feedback that a WLD provides, in relation to whether s/he has been understood. A discussion on whether aids were successful in eliciting accurate responses is presented in chapter 7, as is the interpretation of the term accuracy.

Finally, results of the IO and RI focussed survey that were compiled by the online tool used were compared with the qualitative analysis of the interviews that are presented in chapter 6.

To summarise, this chapter has focussed on providing a rationale for using CA as the most appropriate qualitative approach to answer the RQs in this study. Data sourcing, collection and the analytical procedure used have been explicated. In the next chapter, participants' orientations to aids as multimodality resources are analysed, together with the trajectories that were observed in episodes of repair and PI.

4 COMMUNICATION AID - MEDIATED EPISODES OF REPAIR AND PLANNED INTERVENTION

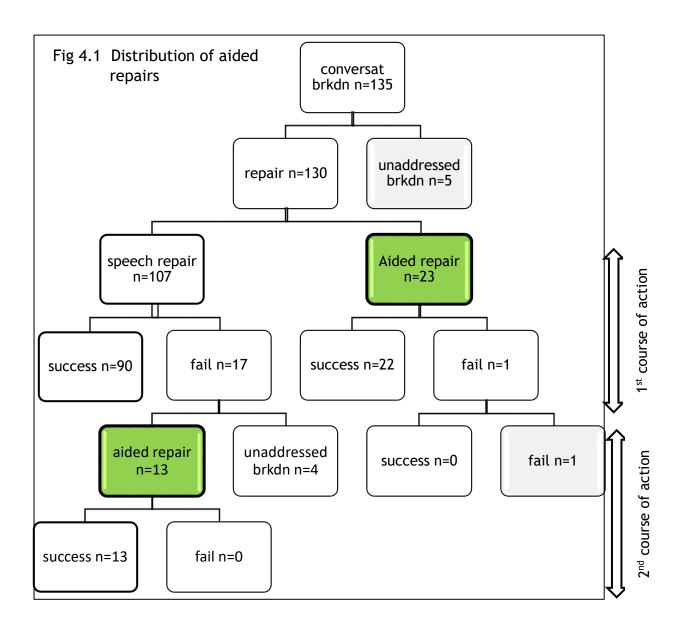
Aids were recruited in two situations: Firstly when speech failed and they were used to repair the mis-communication (n=36) and secondly, as a preventative device to circumvent a breakdown, in episodes of PI (n=79).

In (4.1) an analytical overview of aid-mediated episodes of interaction is presented. Section (4.2) examines participants' orientations to aids as augmentative or alternative devices, as speech-equivalent resources for interview talk. The next two sections are concerned with aided repair, specifically, section (4.3) examines the interactional dispreference for Self-initiated Self-repair and section (4.4) presents the trajectory and the sequential interactional phases during which aids are recruited within aided Other-initiated repair. Section (4.5) presents an analysis of how proposals to use aids are made in aided episodes. Next, section (4.6) is concerned with PI, its interactional phases and explicates how topic-focussed announcements are issued. Section (4.7) critically evaluates the answers to the dual focussed RQ addressed here namely:

How are low technology aids oriented to by interview participants (IO, WLD and RI) in eliciting information and what are the sequential interactional phases during which they are recruited in aided episodes of interaction (repair and planned intervention)?

4.1 Analytical overview of episodes of aid-mediated use

The 36 aid-mediated repair episodes were identified from a larger corpus of aided and speech-only repairs arising from 135 conversation breakdowns. The IOs typically gathered evidence from WLDs through spoken requests for information, the majority of which were through questions although other means of gathering investigation relevant information were employed (cf section 5.3). Repairs were typically first attempted via speech and aids were used when speech repair was unsuccessful (n=13). This means that in these situations, IOs and RIs recruited aids when speech could no longer repair a breakdown. See Fig 4.1.



However, on other occasions, aids were recruited as a first course of action after a breakdown (n=23). In other words, RIs and IOs sometimes opted to use aids to repair some breakdowns rather than speech, orienting to them as a preferred means of repair in those situations. Since this analysis is qualitative, the distribution of aided repairs is presented to set the context only. The two green boxes are the episodes of aided repair relevant to this research i.e. the episodes when aids were recruited as a 1st and 2nd course of action, to fill the gap left by unsuccessful speech-only repair.

The details of all repairs and PI are documented in a spreadsheet in Appendices 6A-C, which has informed the analyses in chapters 4-6.

IOs and RIs left some breakdowns unaddressed (grey boxes in Fig 4.1). In those instances, IO and RI participants ignored the trouble and moved on to a different topic, prioritising conversational progressivity over interactional goals.

The second situation where aids were recruited was in episodes of PI (n=79), 78 of which resulted in investigation relevant information. As a reminder, episodes of PI are those episodes where RIs and IOs incorporate aid use into interview talk, agreed during their pre-interview planning and is based on an RI's pre-interview assessment.

Although speech was often used as the first communication modality in these data, participants oriented to aids as being equal to spoken communication as multimodal tools for talk and this was evidenced in their talk throughout the data, as is analysed in the next section.

4.2 Participants' orientations to aids

The data is filled with examples of IOs referring to and sometimes requesting previously used aids (e.g. Appendix 7: interview 1, line 287; interview 2, line 538; interview 5, line 93), either after a breakdown or in episodes of PI, to prevent one, demonstrating their orientation to aids as resources that had the potential to successfully elicit information, because speech-only talk would have been inadequate. IOs, RIs and WLDs typically oriented to aids as devices to increase the specificity of talk. They oriented to aids as resources that could add emphasis to speech, thereby improving the quality of evidence. Although this orientation was observed in both repair and PI, the following section presents a representative example of repair, where aids are being used as a tool to increase the specificity of repair initiating devices.

4.2.1 Aids as specificity increasing devices

Research on Other-initiated repair asserts that a natural ordering of speech mediated repair techniques exists (Schegloff et al 1977; Schegloff 2007). More specifically, repair techniques are recruited in terms of their increasing strength and this is also true in the case when multiple repair initiators are used (Egbert et al 2004).

The following excerpt demonstrates the points at which participants recruited aids to increase the specificity of their talk in repair and the interactional points at which they terminated their use. The Routes for Learning *Gradual Shift* from concrete (more specific) to abstract (less specific) continuum (Welsh Assembly Government 2006) introduced in Chapter 3 Methodology is referred to here to explicate this point. Prior to excerpt 4.1, the IO had asked a question relating to *when* the allegation had occurred. His institutional question triggered a conversation breakdown (Appendix 7, transcript 3, line 65 onwards). Although the WLD did answer the IO's question, both the IO and the RI oriented to 3 separate *instances* of delay that the WLD demonstrated in her responses (line 66, line 72 and line 79) as indications of trouble. Therefore although this analysis is not concerned with the duration of a pause, it is concerned with participants' orientations to the presence or pauses and treatment of them as being relevant. Excerpt 4.1 begins at the point where the RI proposes use of a timeline as an aid (line 120), "I'm just wondering if a timeline of days might help if she's not sure which day".

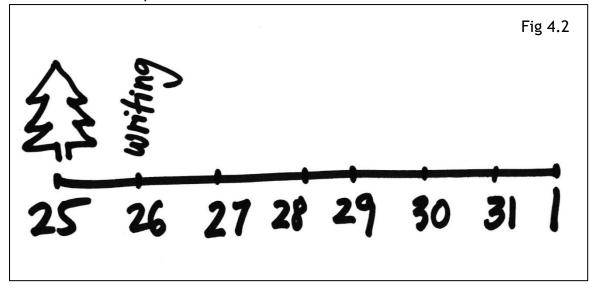
Once the IO agreed with the RI's proposal, the RI launched a multipart episode of repair. He divided this repair episode into four separate sequences, each of which targeted linguistically simpler aspects of the IO's institutional question. Each aided sequence has been colour coded differently for clarity. The spatial arrangement that the IO, WLD and RI had organised themselves into offered equal physical and visual access to the aid and was crucial to the interaction as it allowed intersubjectivity to be maintained (Kendon 1990) thus enabling all the participants to access the aid simultaneously and co-operatively.

The RI embarked on the first section of the repair sequence (lines 127-142: yellow). In lines 127 to 130 the RI started creating the first section of the aid in real time: he drew a horizontal line across the sheet of paper in the WLD's visual field and chose

Christmas Day to be the first "landmark event" (Glasner and van der Graat 2009: 335). He wrote number 25 at the start of the line.

Addressing the WLD directly, "WLD do you know what number that is" (line 131), using a pen as an extension of a point in order to explicitly direct her gaze²⁴ to index the number as a referent (Streeck et al 2011), he elicited a spoken answer i.e. that it was the number 25. The number as a symbol, was closer to the abstract end of the *Gradual Shift* continuum (section 3.6.4). He verbally provided a different semantic cue, i.e. that it was Christmas day, but then increased the salience of number 25 by increasing its specificity. He accomplished this by initially starting to draw a symbol of Christmas, in the shape of a Christmas present (line 134), but he then amended that initially chosen symbol to a Christmas tree (lines 135-136). The line drawing of a Christmas tree iconically represented the shape of a Christmas tree and was closer to the concrete end of the *Gradual Shift* continuum. By using a more concrete repair initiator, the RI increased the specificity of the number he was pointing to on the timeline.

See simulation of timeline in Fig 4.2, taken from the researcher's field notes at the time of transcription²⁵.



²⁴ As stated in chapter 3 Methodology, the interview data did not allow transcription of gaze shifts and therefore a dedicated analysis of gaze and eye pointing was not carried out. The direction of a participant's head orientation was recordable and at times head orientation was the only way in which shared attention to an aid was demonstrated. The term gaze has been used here in that context, in this excerpt and throughout this thesis.

²⁵ It was not possible to clearly read the RI's writing against '26'. It is assumed from their talk that the word Boxing Day was written however in the interests of accuracy, the word 'writing' has been reproduced, to illustrate the point that 26 had some writing against it.

He then used the process of identifying successive dates from Christmas to New Year's day as additional landmark events, to ascertain the WLD's understanding that each of those dates were separate, fell on separate days of the week and lay in between Christmas (the beginning of the time period) and new year (the end of the relevant time period).

The RI launched into the 2nd section of the repair sequence (lines 143-150: green). His goal at this time related to identifying the WLD's understanding of the 26th, its conventional name as Boxing day and the day of the week it fell on that year. In addition to verbally checking understanding, he used writing (line 144) to increase the specificity of his verbal repair initiator, by writing the number 26 on a point on the timeline. He had previously checked with the WLD's mother (Appendix 7, transcript 3, line 128) that WLD was able to read. According to the *Gradual Shift* continuum, writing is more concrete (i.e. more specific and stronger than speech alone), thus disambiguating his message to a greater extent. By tapping on the specific point on the timeline that marked Boxing Day, he increased the specificity of his repair, strengthening the focus of his talk.

After following a similar process for the 27th, 28th, 29th and 30th, the RI embarked on the third section of his repair sequence (lines 153-161: pink). He started by asking a question relating to WLD's whereabouts on New Year's eve to orient her to the date in question. He reinforced her orientation to that date by writing the number 31 on the timeline. Writing lies further away from spoken words and closer towards the concrete end according to the *Gradual Shift* continuum. Further strengthening it as a repair initiator, he used the embodied action of tapping to retain her attention and focus to it. Additionally, he combined that tapping with a short, spoken question relating to the day of the week it was (line 158), recruiting a key worded utterance (line 159) for immediate attention and repeating it for emphasis (line 160). He used pointing with a pen, tapping and writing, to further strengthen the repair, thereby increasing its specificity over the course of that section.

Finally, the RI commenced on the fourth section of the repair sequence (lines 162-167). Using tapping of his pen to draw the WLD's attention to the 1st landmark event (Christmas day) to give her perspective of the relevant time period, pointing to draw emphasis to the IO herself and pointing back to the timeline with the pen as a repair initiator, the RI drew the WLD's attention to the institutional question. The RI then asked the institutional question in lines 166 and 167, "so what [IO wants to know is what day that this happened on [there.", which triggered her answer in line 168 and 169, she confirmed through speech, "there that saturday". She also, increased the strength and salience of her answer through pointing to the relevant date on the timeline i.e. that it occurred on the 29th.

Although the WLD had initially stated the allegation had occurred on a Saturday (Appendix 7, Transcript 3, line 68), the IO had previously oriented to it as problematic (excerpt 4.1, line 120) but the confirmation received during this aided episode was accepted as now being unproblematic. Both answers were spoken, and additionally, they were both "Saturday", however the IO oriented to the second as being accurate and confirmation of the prior²⁶. The interactional time spent during these pre-request sequences, each of which built upon and consolidated the previous, oriented the WLD to the upcoming institutional request and enabled concretisation of an otherwise abstract concept. Had the timeline and associated numbers and icons not been used, it is likely that the IO would have remained confused about the WLD's initial answer.

Excerpt 4.1 ²⁷		Aids oriented to as specificity increasing devices	
120.	RI	I'm just wondering sorry I'm just wondering if a timeline of days might help if she's not sure which day	
121.	10	yeh	
122.	ri ^A	\perp brings sheet of paper out \perp >	
123.	ri ^A	(3) ⊥>	
124.	RI	WLD if you've got	
	ri ^A	$\perp,,,,,,,,,,,,,\perp$	

²⁶ Pre-interview RI assessments were not made available to this researcher and it is possible that the WLD had demonstrated difficulties in this area at the time, resulting in the IO needing confirmation of the WLD's initial answer. In any case, preparing the participants for the upcoming request in a sequentially incremental manner also served as confirmation of the WLD's original answer for the IO.

 $^{^{\}rm 27}$ All aided actions in this and all other transcripts have been indicated using a superscript A, as explicated in the chapter 3 Methodology

125.	ri ^A	\perp puts blank sheet of paper on table in front of both of them \perp
126.	RI	do you mind if I draw
127.	Ю	no that's ok
	ri ^A	\perp draws horizontal line \perp
128.	RI	can WLD read
	ri ^A	\perp writes number on the paper \perp >
129.	mother	yeah
130.	ri ^A	⊥
		#representation of number 25#
131.	RI	WLD do you know what number that is
	ri ^a wld ^a	* \perp RI uses pen to point to mark on paper \perp
	widh	\perp *gazes at marks on paper* \perp #representation of number#
100		
132.	WLD	twety fi::
133.	RI	so that's krismas day yeh yeh
134.	RI	there's krismas so I draw a present for krismas shall we
	ri ^A	\perp starts to make marks on paper \perp
135.	RI	(3) or krismas tree
	ri ^A	⊥>
136.	RI	so that's krismas day
	ri ^A	⊥⊥ ,,,,,,,,,,,,,,,,⊥ #representation of Christmas tree#
407		
137.	WLD wld	um *nods *
138.	RI	yeh
139.	RI ri	krismas day was a. choozday? choozday \perp gazes at IO \perp
140		
140.	10	yeh
141.	RI	do you know which day of the week that is

142.	WLD	choozday
143.	RI	choozday
	ri ^A	\perp starts to write on paper \perp
144.	RI	ok ok. and do you know what they call the 26 th ?
	ri ^A	\perp >
4.45		#number 26 on paper#
145.	WLD ri ^A	wende:: ⊥,,,,,,,⊥
146.	RI	is that boxing [day
110.	wld	[*nods
147.	WLD	yeh
148.	RI	that's boxing day yeh?
	ri ^A	\perp writes on paper again>
149.	RI	so was boxing day a Wednesday again
	ri ^A	$\bot,,,,,,,,,,,,,,,,,\downarrow$
150.	WLD	that the day
151.	ri ^A	(4) \perp writes further numbers on paper \perp >
		#numbers written on paper#
152.	RI	(7) was a Tuesday Wednesday Thursday Friday
	wld ri ^A	*gazes at paper* >⊥ continues writing numbers⊥>
		# representation of numbers 27, 28, 29, 30 #
153.	RI	do you remember what you did on new year's eve.
	ri ^A	\perp writes a different number on paper \perp \perp ,,,,,,,,,,,,,,,,
		<pre>#representation of number 31 written#</pre>
154.	WLD	de:::d in
155.	RI	so this is new years eve
	ri ^A	\perp points to number 31 with pen \perp
156.	RI	the thirty first innit

157.	WLD	(2)
158.	RI ri ^A	and what day what day is this ot taps number 31 on paper ot >
159.	RI wld	WLD here *leans forward and gazes at paper*>
160.	RI ri ^₄	what day is this \bot \bot ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
161.	WLD	monday
162.	RI ri ^a	and this. ot taps number 25 on timeline ot
163.	WLD	choozday
164.	RI ri ^₄	ok so this krismas day ot taps number 25 on paper ot ot
165.	WLD	yeh.
166.	RI ri	so what [IO wants to know [right hand points to IO
167.	RI ri [∧]	is what day that this happened on [there. $[\perp points to timeline \bot]$
168.	WLD wld ^A	oh ! *picks pen up*
169.	WLD wld ^A	that there saturday *uses pen to point to 29 on paper**
170.	10	Saturday?
171.	WLD	yeh

This representative example has demonstrated the way aids were recruited to emphasise and consequently upgrade the degree of specificity in their recruitment over and above what was able to be achieved from the most highly specific speechonly talk. In other words, RIs and IOs oriented to aids as devices to increase the specificity of talk by strengthening and clarifying initial speech only talk.

4.2.2 Disambiguating responses: augmenting and replacing

Aid recruitment above was mainly done by the RI, prior to eliciting an answer from the WLD. However interview participants' orientations to aids as specificity increasing devices was also demonstrated when WLDs used them to provide responses to IOs' questions.

When this occurred, as in excerpt 4.1 where the WLD answered the question by using a pen to point to number 29 on the timeline, aids were sometimes used in addition to spoken talk in producing an answer. In those situations, participants oriented to aids as augmentative devices (cf section 3.6.3). At other times, WLDs used aids to replace a spoken answer and in those situations, participants oriented to them as alternative devices. All participants oriented to aids as being complete, adequate and not deficient in any way, as will be seen throughout the analyses chapters.

The previous section reported that 35 of 36 aided repairs and 78 of 79 episodes of PI elicited information. Of these 113 successful elicitations, aids were used as augmentative devices (as defined in Chapter 3) in the majority of cases (n=87, 77%). See Appendix 6B for a breakdown of participants' aid use as augmentative or alternative devices.

4.2.3 Aids as augmentative devices

This section focuses on participants' orientations to aids as augmentative devices. The following representative excerpt demonstrates the way a WLD used aids in addition to speech in his final answer, explicating participants' orientations to them as augmentative devices. The IO's institutional aim in excerpt 4.2, an episode of PI, was to determine *where* the allegation of sexual assault took place. Emulating the RI's modelling of using drawing as an aid, as was accomplished in a previous interview (Appendix 7, transcript 5, line 86), here, the IO proposed the use of it again in this section of the interview (line 223), "shall we use a piece of paper".

Several turns were involved in preparing the aid for use e.g. retrieving a sheet of paper, making available a pen, and providing a hard surface on which WLD could rest his paper, but these turns are not reproduced here, as they do not relate to the augmenting/replacing argument. Drawing and talk were then used co-operatively. Drawing of a parallel pair of lines represented a road and enclosed shapes (e.g. square) represented a key location such as a fast-food outlet or bus stop, all of which in combination and relation to each other were oriented to as a map by the participants.

Drawing was used either as a trigger for talk (as in lines 234, 235 where drawing of the 'road' triggered a spoken explanation of what it represented) or was recruited in conjunction with talk (as in line 238 where a square shaped marking elicited an explanation that it represented Burger King). Throughout the sequence, the map and talk were used collaboratively as tools to augment each other: Drawing either instigated spoken talk or it was used simultaneously in conjunction with talk, thus assigning equal relevance to each successive drawing on it.

Each assisted in structuring the next sequence of the conversation and each directed and was directed by the interplay and impact one had on the other. Each new sequence of the WLD's aided talk was topically coherent with the prior talk and physical aided actions underway i.e. it was locally occasioned (Jefferson 1978). Every new sequence triggered a successive sequence (of talk and aided actions) that was related to and built upon the previous aided talk, demonstrating its sequential implicativeness (Schegloff and Sacks 1973) and relevance to it being told in that order, all of which incorporated simultaneous and contemporaneous use of drawing in recruiting a map as an aid.

The choice of deictic markers e.g., "that's the road" (line 235), "you got burgerking here" (line 238) and way the map was included in talk, indicated that one would not make much sense without the other. The WLD took advantage of the IO's shared knowledge of various locations and at each point after completion of a sub-task (e.g. location of Subway, location of Burger King, location of bus stop etc), in this map-drawing coordinated activity, the IO acknowledged receipt of the incremental information he was providing. Those acknowledgement tokens i.e. "yeh (lines 239, 242 and 247) and uhuh" (line 237) had the effect of implicitly agreeing the

relevance and importance assigned to the drawings on the map and thereby assisted in progressing the sequences of aided talk further.

Excerpt 4.2

223.	10	[shall we use a piece of paper
	ri	[\perp reaches in to bag and gets out paper. \perp
224 to	231 T	ranscribed but not reproduced as irrelevant to current argument
232.	wld ^A	** draws two parallel lines across section of the page>
233.	WLD	(3)
234.	WLD	you got the road down the hollies here
235.	WLD	and that's the road
	wld ^A	<pre>>* Marks a cross on the paper*,,,,,,,,,,,,,,,,,,,*</pre>
236.	WLD	you got sub subway here
	wld ^A	* draws shape in different area on page *>*,,,,,,*
237.	10	uhuh
238.	WLD	an you got you got burgerking here
	wld ^A	*Marks a square on the paper**,,,,,,*
239.	10	yeh
240.	WLD	an a a a at that time
	wld ^A	* draws in different area on page **,,,,,,,*
241.	WLD	there ust'uh be taxis here
	wld ^A	**,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
242.	10	That's right yeh
243.	WLD	there ust'uh be taxis.
244.	WLD	an like that burgerking
245.	WLD	you've got bus stops innit.
	wld ^A	**

246.	wld ^A	(1) *Draws a square shape on paper>*
247.	10	Yeh
248.	WLD wld ^a	bustops. >,,,,,,,,,**
249.	WLD	and like that just here
250.	WLD wld ⁴	you'v got the little alleyway >*draws different shape **
251.	10	So right next to burgerking.
252.	WLD wld ^A	yeh >*,,,,,,,,,,,,,,,,*
253.	WLD wld	wehstweh. and it used to lead to the back of all *Right index finger makes circular movement in front of self *
254.	WLD	all of the shops.
255.	10	yeh
256.	wld ^A	*draws*
257.	WLD wld ⁴	an go that way a little *Draws a line on the sheet of paper**
258.	WLD	and go there
259.		and that's where I was seksily assaulted this year makes cross on previous marking **

Although the participants oriented to the communication aid use as complementing speech, drawing of and on the map was institutionally and interactionally essential and not merely incidental to the conversation: the information recorded on the map was central and indispensable in relation to the information communicated. The WLD's final answer (line 259) consisted of a combination of aid use (i.e. marking a cross on the map) and talk, where his spoken words, "that's where I was seksily assaulted this year" would have remained meaningless without the accompanying map.

Additionally, in later talk (Appendix 7, transcript 5, lines 265-283, 305-319, 336) both the IO and the WLD continued to refer to the in-the-moment created map, thereby demonstrating their orientation to it as an equally salient communication tool. The IO also asked the WLD to sign the map and then retained it as an exhibit, further reinforcing its permanence as salient. This contrasts with speech only communication where spoken words are not visible and short lasting (Norris 2004). Spoken words disappear as soon as they are uttered whereas visuals are visible and last if they are retained in the shared space between participants. The created map afforded a permanent visible resource that participants oriented to as an indispensable element of the interaction order of that episode. There was no expectation on the part of the IO for the WLD to use speech only to communicate his answer. Aids were used in addition to speech in the *lead-up* to the final response, as well as *in* the final response itself (i.e. the cross mark on the map) and were therefore considered to have been used as an augmentative device.

Attention now focuses on the manner in which aids were used as an alternate to speech i.e. when their use occurred *instead of* a spoken word or phrase that would have answered the institutional question to which the response related.

4.2.4 Aids as alternative devices

In 23% of aided interactions, aids were used by the participants to replace speech in the final answer of that episode, resulting in an aid being oriented to as an alternative device in those situations.

In excerpt 4.3, wooden mannequins were the communication aids used and although they augmented speech in the lead up to the final response that related to the IO's initial institutional goal, they completely *replaced* speech in the final response.

In this episode of PI, the IO's institutional goal related to the positions of the suspect and the WLD during an allegation of sexual assault. The IO made her institutional goal explicit in line 383 by announcing, "I want to know exactly where tim is", to which the RI proposed use of wooden mannequins which she then involved herself in preparing in lines 385-393. In order to eliminate ambiguity

in terms of the mannequins' iconic representations²⁸ the RI busied herself establishing which of the two represented the suspect and the WLD (lines 392-403), and then reframed the IO's speech related request for information in to an instruction (line 407), "will you put tim where tim was"

By using the visuospatial-focussed word "put" rather than "tell" she demonstrated her expectation that some form of embodied action was anticipated. The word "put" in the RI's instruction, together with the ecological huddle created by all participants gazing at the mannequins to the exclusion of all else, created the expectation that an aided, embodied physical action was anticipated and likely. The design of that form of wording, together with the participants' physical orientations to each other and the aids in the o-space between them, triggered an aided answer.

The WLD did not use words in her answer but instead she used aids exclusively to provide her answer (line 409). By placing the 2nd mannequin (suspect) behind the 1st mannequin (WLD) she wholly answered the IO's evidentially relevant question. The positional evidence thus produced was oriented to by all as being unambiguous. Aids reduced the answer to its propositional content and were treated by all participants as being adequate and complete.

Although in the run-up to the response that answered the institutional goal, speech was used in conjunction with aided action, it was this placing of mannequins relative to each other in the final answer that completely replaced spoken language and therefore aids were used in this instance as an *alternate* to spoken communication and participants oriented to aids as being the only way that piece of new information was elicitable. They treated aids as being the preferred method with which to elicit an answer in relation to key evidential positional information.

Further ratifying their use as devices that can at times be unambiguously used instead of speech, the IO subsequently recruited those same mannequins to elicit another investigation relevant point later in the same interview, "now that you've got those dolls there. Now we've got those dolls there it might be worth just

²⁸ A matter returned to in section 6.5.2

asking you" (Appendix 7, interview 4, line 423) and "I'm just going to ask you to to demonstrate on those where he's put his hand" (line 424). The IO's use of "demonstrate" instead of "tell" further indicates her orientation to aids as the means of optimum communication for the WLD, resorting to them first as a means of eliciting communication rather than talk.

Excerpt 4.3		Aids as an alternative answering device
383.	10	You were in the park I want to know exactly where tim is.
384.	RI	do you think these might help.
385.	ri	\perp reaches in to bag \perp
386.	10	yeh.
387.	RI	I've got two little wooden people ok
388.	wld	*nods*
389.	RI ri ^A	so one of them has got a green dot on \perp holds one wooden mannequin out in front of WLD \perp >
390.	WLD ri ^a	yeh ⊥puts hand in to bag⊥
391.	RI ri ^A	and the other ones (just a squidgy thing) \perp picks up 2 nd wooden mannequin \perp >
392.	RI	so can you decide who first of all
393.	RI ri ^a	which one's going to be you \bot holds 2^{nd} mannequin out in front of WLD⊥>
394.	WLD wld ^A	that one me. moves hand towards one of the wooden mannequin>
395.	wld ^A wld ^A	*points to one of the wooden mannequin * *gazes at one mannequin>
396.	RI ri ^A	that one's you. \perp gazes at one of the mannequins>

397.	WLD	yeh
398.	RI	so if I hold you.
399.	WLD	yeh
400.	RI wld ^a ri ^a	and you're standing up >**,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
401.	RI	are you saying that
402.	RI wld ^a ri ^a	that one's tim? *looks at the 2^{nd} mannequin> \perp looks at the 2^{nd} mannequin>
403.	WLD	yeh
404.	ri ^A	\perp gives the 2 nd mannequin to WLD \perp
405.	RI	if I get you to look at IO like that so IO can see.
406.	wld ^A	*holds 2 nd mannequin in her lap*
407.	RI	will you put tim where tim was.
408.	ri ^A	\perp holds 1 st mannequin still in space between the WLD and RI \perp
409.	wld ^A	*moves 2 nd mannequin behind the 1 st mannequin *>
	ri ^A	# both mannequins facing the same direction # \perp RI looks at mannequin
410.	wld ^A ri ^A	holds 2^{nd} mannequin in position> ,,,,,,,,,,,,,.
411.	wld ri	*looks at RI>* \perp looks at WLD \perp
412.	wld	* > ,,,,,,,,,,,,*
413.	RI	yeh?
414.	WLD	yeh

- 415. wld *looks at IO *
- 416. RI from that it looks like he's behind you.
- 417. WLD (3) yeh

The way aids were used to achieve an end differed in excerpts 4.2 and 4.3 but in both of those representative examples, aids were oriented to as being equally robust in accomplishing their goal, without which investigation relevant information was unlikely to have been elicited. There was no insistence on speech: aids were equally positioned and oriented to as being as relevant and as acceptable as speech.

Having examined participants' orientations to aids as augmentative or alternative devices and as specificity increasing resources, the focus of this chapter now turns to examining the specific situations where aids were recruited in these data. Two situations were identified, and they were introduced in section 4.1 as episodes of repair and PI. Repair is analysed first, with the next section beginning with Self-initiated Self-repair.

4.3 Interactional dispreference for Self-initiated Self-repair

Self-initiated Self-repair which is typically accepted as being preferred (Sacks et al 1974) in typical verbal conversation (Schegloff 1992) was not observed in these data. Overwhelmingly, it was typically the RI and the IO who identified a WLDgenerated conversation breakdown and initiated repair. Once these WLDgenerated breakdowns were brought to WLDs' attention, they were then typically completed by WLDs themselves. It would have been incompatible for any of the other participants to complete repair on behalf of a WLD as WLDs were the participants with sole knowledge of the allegation.

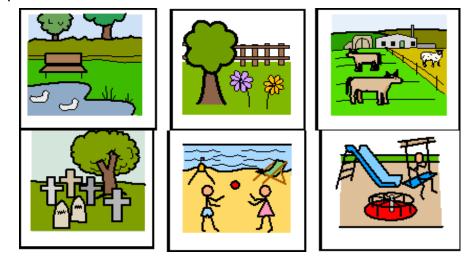
WLDs were not always able to realise Self-generated misunderstandings and it is possible that difficulties with Theory of Mind impacted their ability to do so. However, Theory of Mind is not an *all or nothing* phenomenon and the linguistic

and cognitive abilities of WLDs with an LD are broad. Consequently, there were a few instances of WLDs initiating Self-repair using speech. When that occurred, repair initiation was accomplished in the next turn as the trouble source turn, as is expected with linguistically typical individuals (Schegloff et al 1977). Another reason for a dispreference for Self-initiated Self-repair in WLD generated breakdowns was poor expressive abilities.

Although episodes of Self-initiated Self-repair of WLD-generated troubles did not predominate in these data, one instance is presented here in excerpt 4.4 to demonstrate the type of interactional work a WLD engaged with to communicate her message. In this excerpt, the WLD recruited aids to complete the repair, orienting to them as being a preferred resource when speech only communication was likely to be inadequate. The WLD had used this aid previously in earlier sections of the interview (Appendix 7, transcript 1) and this in-interview prior usage resulted in her resorting to using them in this excerpt.

This WLD's spoken communication consisted of single words, 2-3-word phrases and for the most part, unintelligible pronunciation. In episode 4.4, the IO's institutional goal consisted of determining what the WLD and the suspect were sitting on when they were at the pond (line 965), the scene of the allegation. A set of coloured purpose-specific pictures of different land and water-based environments from commercially available software had been previously used, from a closed book of coloured pictures which was on the table in the shared workspace between the participants. See Fig 4.3 for a simulation of 6 similar pictures taken from the author's field notes, using her own Communicate-In-Print license to reproduce them.

Fig 4.3



In response to the IO's question, the WLD began her response by using speech (line 966) and idiosyncratic gesture (line 967) but then oriented to her own gestures as being potentially problematic initiating a repair herself in the next turn (line 968). She accomplished this using a combination of speech i.e. asking for the previously used set of coloured pictures, and as well as via the embodied physical action of pointing, to repair that trouble.

Her idiosyncratic gesture in line 967 was recipient specific, possibly familiar to her own close family members or carers. In contrast, pictures that are iconic of an actual physical item do not necessitate prior knowledge and offer an immediate and shared representation of a particular concept. By designing her self-initiated repair so that it involved iconic pictures that had been previously used and understood by all, demonstrated the WLD's orientation to their iconicity as being more understandable than her spoken words and more unfamiliar idiosyncratic gestures, thus increasing her potential credibility.

Excerpt 4.4		Self-initiated self-repair
965.	ю	What . were you sitting on?
966.	WLD	so sit down
967.	wld	* downward facing fists move downwards from waist high*
968.	WLD wld	name. book *Shakes head, looks around, points to the closed book containing set of coloured pictures*
969.	IO ri	Would you like to see the book? = $[\perp RI$ opens book to page of environments \perp
970.	WLD	= yeh
971.	RI ri ^a	°Picture of scenes° ⊥Holds open book on WLD's lap>⊥ #coloured pictures of environments#
972.	WLD wld ^A	si::t *Points to picture of seat near pond*

973.	Ю	on a seat?=
974.	WLD	=si::t
	ri ^A	> \perp ,,,,, puts book away \perp

Pointing, as a physical action that accomplishes something is analysed in detail in chapter 5. Here, the emphasis lies on the WLD's ability to orient to her own potentially problematic initial communication (gesture and speech) independently. She was a 48-year-old woman with largely unintelligible speech, with many years interacting with typically communicating Others. In this excerpt, this WLD demonstrated her orientation to the IO as an interlocutor unfamiliar with her idiosyncratic speech and gestural patterns, as would be most individuals not previously known to her, indicating some understanding of his interactional needs as a listener.

Additionally, it is likely that the availability of the set of pictures in the interactional space facilitated the WLD to use it to initiate repair. Therefore, if her Self-initiated Self-repair related to her orientation to her own expressive difficulties and not necessarily to the impact they were having on the IO, her actions would be reflective of her ability to use an alternate means of communication (i.e. an aid) when a conventional method (i.e. speech) fails. Nonetheless, the aid was recruited when the WLD considered speech to be inadequate, but these instances were rare in these data. See Appendix 6B, page 306.

4.4 Trajectory of Other-initiated Repair: Interactional phases of proposal, pre-request sequence, amended aided request

Although WLD-generated repair²⁹ in these data was typically *completed* by WLDs themselves, and not by Other, initiation of aided WLD-generated repair was overwhelmingly accomplished by Other (IO=17, RI=14, of a total of 32 aided WLD-generated breakdowns), indicating an interactional preference for Other-initiated

²⁹ There were more Self-initiated Self-repaired IO-generated breakdowns than Other-initiated Self-repair as per the rules of typical conversation (Schegloff 1979). There were no instances of RI generated troubles.

Self-repair, an observation that contrasts with what has been documented in neurotypical interlocutors. See Appendix 6B, page 306.

Apart from atypical communication in dysarthric speakers where Other-initiated self-repair has been noted (Bloch 2011; Bloch and Wilkinson 2011), this finding in these data is incongruent with the accepted understanding that an interactional preference for Self-initiated Self-repair exists (Schegloff et al 1977; Schegloff 1979).

In congruence with Other-initiated Self-repair in speech-only interactions which is accomplished through two types of sequence expansions (i.e. as insert sequences, after a problematic base first pair part and before a possible upcoming dispreferred base second pair part (Schegloff 2007c; ten Have 2007a) or via post sequence expansions, introduced after a troublesome second pair part (Schegloff 2007d), aided Other-initiated Self-repair was also accomplished in those two ways in these data. What was unique however, was the way aids that were recruited in these two types of sequence expansions modified the trajectory of the repair episodes.

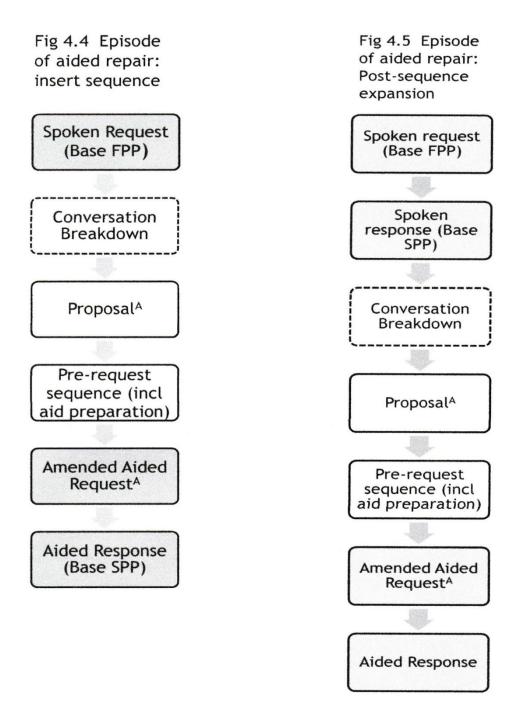
The trajectory which emerged in each aided repair episode, irrespective of the type of sequence expansion used, consisted of three discrete, defined interactional phases that were accomplished by the interview participants:

- i. The first of these phases typically involved an RI (but at times an IO, emulating an RI's prior model) *proposing* the use of aids, which was then followed by
- ii. An aided *pre-request sequence* which involved some manner of physical aid preparation (in relation to the upcoming request), and
- iii. Thirdly, an *amended aided request* (for information), typically produced by the IO, which then resulted in a WLD's response.

Each of these three interactional phases contained in an episode of repair is analysed in detail later in this chapter and in chapter 5 but first, a schematic representation of these phases is presented in Fig 4.4 and 4.5^{30} as an overview to assist with understanding the placement of the phases in relation to a breakdown.

³⁰ As a reminder, superscript A relates to all aided actions.

Although the sequential position when aids were recruited differed, as schematically illustrated below, in that aids were recruited after a problematic *first* pair part in insert sequences and after a problematic *second* pair part in post-sequence expansions, the trajectory of the ensuing phases remained constant.



Excerpt 4.5 is presented next as an overview of the three different interactional phases, each of which will be examined in detail in due course. The excerpt is taken from an interview where a WLD had alleged a sexual assault by a carer who had 'grabbed'³¹ him. The IO's institutional goal at this point in the interview was to establish how the alleged 'grabbing' of the WLD had taken place and in line 394, he made a spoken request for information asking the WLD to "describe" how that had happened. The WLD began his answer by selecting to mime the physical actions involved in how he was grabbed, rather than by using spoken words alone but that manner of communicating, although typically accessible to non-aid users in a social non-institutional context, was rejected by the IOs in the interview context as thereby causing trouble. ABE guidelines (Ministry of Justice 2011: 124) recommend against WLDs enacting an allegation using their own body. The ensuing conversation breakdown continued over several turns (lines 395-406), due to the WLD's problematic base second pair part and initially resulted in the IO resorting to re-wording his original request to improve its specificity, but continuing to do so within the aural-oral modality (line 406). Orienting to the persisting conversation breakdown, the RI then took the floor by initiating an aided repair sequence. She chose not to employ a speech mediated repair initiator device, but instead elected to use the visuo-spatial modality.

The *first* component of the repair episode was launched in lines 407-410 when the RI *proposed* the use of wooden mannequins to assist by using speech as well as the embodied actions of retrieving and showing the aids to the WLD. In constructing her proposal as a thought, i.e. "I think I might have something that can help" the RI enabled the other participants to symmetrical deontic access to decision making (Stevanovic 2013). Demonstrating allegations on oneself or interview participants is contraindicated by interviewing guidelines (Ministry of Justice 2011) as the WLD had originally suggested (lines 397-402) however recruiting inanimate objects minimises the risk of potentially distressing reenactments and was oriented to by all as being preferable (lines 409, 410).

³¹ The WLD had previously used the words "grabbed" and "dragged" interchangeably in this interview (Appendix 7, Interview 6) in relation to this allegation. All participants oriented to both the words as being unproblematic.

Excerpt 4.5		Three phases in repair sequences	
394.	ю	describe to me how he's grabbed you	Spoken request
395.	wld	*looks around and looks at 2 nd IO *	←]
396.	WLD	(2)	
397.	WLD wld	can I use you *points to IO2; looks at 2 nd IO*	
398.	Ю	best not to	
399.	WLD	It's hard	Conversation
400.	ю	I know it's hard.	breakdown persists
401.	WLD	can I not . show	Persists
402.	wld	*points to IO2 *	
403.	WLD	just show how he grabd	
404.	ю	No. don't. just tell me .	
405.		0.5	
406.	10	what part of his body did he use to touch yours.	↓
407.	RI	I think I might have something that can help	←]
408.	ri	ot leans in to bag. ot	
409.	RI	I have some dolls.	Proposal ^A
	ri ^A	\perp brings out wooden mannequins \perp	
410.	Ю	do you think you could show us with these.	
411-412 not transcribed because not related to current argument			
413.	RI	so that one's you.	
	ri ^A	\perp gives WLD one of the mannequins \perp	
414.	RI	now these can be moved and twisted around so don't worry about breaking them ok	l Pre-request
	ri ^A	\perp twists arm of 2 nd mannequin \perp	(Aid
	wld ^A	* places mannequin standing up on the table*	preparation)

415.	RI ri ^₄	so that one's you, \perp points to first mannequin \perp	
416.	RI ri ^a	and this one's him. \perp gives WLD the 2 nd mannequin. \perp	
417.	RI	can you show us. how he dragged ³² you.	Request ^A
418.	wlda	*puts 2 nd mannequin behind first mannequin *	▲
419.	wlda	*moves right arm of 2 nd mannequin forward.*	
420.	WLD	basically. I was here.	
421.	WLD	eating my burh burh burger.	
422.	WLD	and he was coming around	
423.	wld ^A	*moves right hand of 2 nd mannequin around front of 1 st mannequin*	
428.	WLD wld ⁴	he was coming around like that. *Puts right arm of 2 nd mannequin over and down to the front of the 1 st mannequin, the hand in the groin area*	I Response ^A
429.	10	yeh.	
430.	WLD	he's come around like that	
431.	wld ^A	*moves left hand of mannequin around front of 1 ^{st*}	
432.	WLD	yeh I was =	
433.	10	=so he had both his arms around your waist?	
434.	WLD wld	yeh *nods*	

The proposal was accepted, as demonstrated by an absence of the other participants contesting it, and an immediate uptake of the mannequins as resources to repair the breakdown. In aided sequences targeting repair in these

³² The vocabulary has changed from 'grabbed' to 'dragged' at this point, as was interchangeably used the WLD previously in this interview in relation to this allegation. None of the participants treated this change in terminology as a trouble source and the conversation progressed unhindered.

data, proposals were an inevitable occurrence, with the RI as the participant typically doing the proposing, orienting to his or her epistemic knowledge of atypical communication.

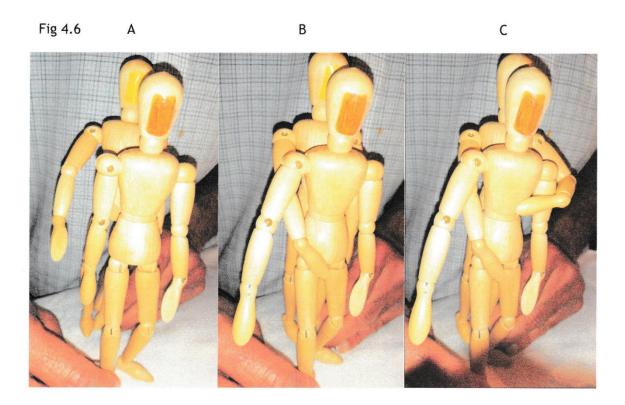
This acceptance triggered the *second* component of the repair episode i.e. the *pre-request* sequence of the aided repair episode, during which time the RI busied herself physically preparing the two wooden mannequins for use, explicating their affordances explicitly (lines 413-416). One mannequin represented the WLD and the other represented the suspect. The RI oriented to their iconic affordances (cf 6.5.2) as not being readily understandable to lay participants and therefore continued demonstrating their functionality and manoeuvrability in the ensuing pre-request sequence. By making their affordances obvious through her words, "now these can be moved and twisted around" and physically twisting their limbs (line 414), this pre-request sequence interactionally served as a fore runner to the next phase of the repair episode, priming the WLD to expect it.

Finally, the *third* component of the repair episode was launched by the RI's *amended aided request* (line 417), "can you **show** us. how he dragged you", interactionally causing all participants to orient to a physical embodied response, rather than a spoken one. The word "show" was interactionally more aligned with physical actions than with the IO's prior request to "describe" and is analysed in detail in chapter 5. This aided request for information triggered the WLD's aided answer in lines 418-431. He began his answer by placing the 2nd mannequin representing the suspect, behind the 1st mannequin representing himself, and in so doing, the WLD animated and authored the sentiment in relation to their respective positions independently (Fig 4.6A) but used an alternative to the traditionally expected aural-oral modality³³.

In alignment with the now embodied nature of the request for information, in line 423, the WLD placed the right arm of the 2^{nd} mannequin in the groin area of the

³³ As stated previously, collecting images of the data was excluded from the Data Sharing Agreement, as they would become part of the evidence and therefore restricted information, not disclosable to anyone outside the investigative process. However the photos in Fig 4.6 were re-created by the researcher, using her detailed field notes and her personal collection of similar aids used by the majority of RIs in practice.

1st mannequin (Fig 4.6B) and lastly in line 431, he placed the 2nd mannequin's left arm around the 1st mannequin's upper body to demonstrate their relative positions during the grabbing allegation (Fig 4.6C), thus completed authoring and animating that message independently. Interactionally, the mannequins were oriented to as speech substitutes for actors in the allegation. Aided actions involving those mannequins (e.g. positioning of them and their body parts) were regarded as speech substitutes for alleged actions that were carried out on him by the suspect. Any difficulty he would have had with using linguistically inaccessible spoken vocabulary relating to physical actions, relative timing of those actions and spatial positioning of the actors in the allegation in relation to each other, were obliterated. Although the repair episode was initiated by the RI, aids enabled repair of the breakdown to be completed by the WLD himself in a manner that suited his communicative



preference, thus facilitating his voice to be projected in a manner that was responsively understood by all. Besides looking forward and fulfilling the interactional goal of repair, aids also accomplished the institutional goal of coproducing new information. This section of the analysis has demonstrated that Other-initiated episodes of aided repair consisted of three functionally distinct interactional phases: Aid proposal, pre-request sequence (including aid preparation) and amended aided requests (the latter two phases will be analysed in chapter 5) but the first phase i.e. proposal and its role in facilitating evidence will now be analysed in detail.

4.5 Proposals to use aids

4.5.1 Embodied proposals

Proposals typically project symmetrical deontic rights between the proposer and the proposee in terms of the proposed future action (Stevanovic and Peräkylä 2012). Typically, those constructed as a thought (e.g. I think...") overtly express those interactional symmetries (Stevanovic 2013). This deontic symmetry was observed in excerpt 4.5 above, where the RI used speech to make her proposal, "I think I might have something that can help" (line 407) in congruence with the current research on proposal making and deontic symmetry. In section 2.1.3, embodied actions have been shown to be used instead of speech in instruction giving however, this analysis adds to the existing literature by arguing that proposal making can also be effectively constructed via embodied actions and does not necessarily need to solely rely on speech as the prime modality. In these data, when that occurred, embodied proposals sometimes replaced spoken proposals and all participants oriented to those embodied proposals as being sufficient and authentic.

On a number of occasions in these data, proposals were accomplished by RIs firstly *positioning* a specific aid in front of a WLD, secondly particularising that proposal by *pointing* to a specific aid (or specific aspect of an aid) on the table in between the participants, and thirdly by retrieving and physically *showing* the WLD and/or IO a fresh aid, thereby disambiguating it completely. All such aided proposal making was accomplished as a "coordinated task activity" (Goffman 1981: 143) i.e. one where the focus of the interaction was not on talk per se but on the actual activity itself.

Excerpt 4.6 is a representative example of how a proposal was accomplished using embodied actions and aids alone. Prior to this point in the interview, the IO had established that a rape had occurred (Appendix 7, Transcript 1) and his overarching longer term institutional goal related to the way that rape occurred. At the start of this excerpt, the WLD introduced the topic of a wall and therefore his more immediate institutional goal was concerned with determining her spatial position in relation to that wall where the allegation of sexual assault reportedly occurred.

At this point in the interview, the IO, WLD and RI were seated around a table on which were placed two mannequins. Noting the WLD pointing to the walls of the interview room (line 998) and then moving her flat outward facing hands up and down in front of her, representing its subjective quality (Bates 1979) of 'flatness', the IO, as the participant with the institution's deontic right to progress the interview, asked (line 1003), "ok show us. do you want to show us against the wall?"

As stated in the previous example, enacting aspects of an allegation on a WLD's own body or using parts of their body is discouraged by ABE interviewing guidelines. It is likely that the RI realised that an initial use of a wall could then be followed by the WLD attempting to enact the allegation against the wall. Therefore, she demonstrated her epistemic knowledge of atypical communication and its resulting responsibilities of eliciting evidence in a linguistically and deontically appropriate manner in an action that was disjunctive to the previous talk. In that same turn, the RI used an embodied action of physically *reaching* towards a tissue box, to propose an aid (line 1003). This alternate visuo-spatial communication modality, besides being more linguistically relevant to the WLD, would also avoid her enacting the alleged abuse which could potentially cause renewed emotional upset, and remain in keeping with ABE guidance (Ministry of Justice 2011).

After she initiated her embodied proposal by reaching for the tissue box, she completed it by *placing* it on the table (line 1004), thereby entering the WLD's activity space (Stivers and Sidnell 2016), and these physical actions were immediately oriented to as a proposal by the IO, evidenced by his subsequent

agreement by using the word "make" and "then" (line 1004), as in "let's make a wall then". Her embodied proposal was an incremental modification of the ongoing activity, i.e. it worked towards the same institutional goal (of identifying her physical position during the allegation) but wordlessly proposed to be accomplished using a different modality and was accomplished through physical actions using aids rather than conventionally expected speech or enactment.

The RI elaborated on her embodied proposal, by *positioning* the box on the table

and particularised it by turning it on its short side (line 1005), so its affordances i.e. a long flat surface, two long and two sides were made short apparent. Although she did not use speech to explain the physical affordances of the tissue box she had proposed, the other participants oriented to it as a wall. See Fig 4.7. The IO demonstrated his understanding of its relevance using speech in 1004-1006, the unseen ratified over-hearer (IO's police colleague in recording room) demonstrated her acknowledgement through her embodied



action (line 1009) and the WLD demonstrated her understanding in her subsequent embodied actions (1011-1012). The RI's proposal was accomplished wordlessly and projected symmetrical deontic rights between her and the IO in relation to deciding whether to use the tissue box as an aid.

Excerpt 4.6 Proposal

998.	WLD wld	(0.5) waw *Points to wall of interview room*
999.	wld	*Moves flat outward facing hands up and down in front of her *
1000.	10	oh wall
1001.	RI	wall

1002.	WLD	yeh ha
1003.	Ю	ok show us. do you want to show us against the wall?
	ri ^A	\perp \perp RI reaches towards tissue box under table \perp
1004.	10	let's make a wall then.
1004.	ri ^A	\perp RI puts tissue box on table \perp
	10	this tissue box has been fantastic hasn't it?
1005.	ri ^A	[\perp RI puts box on its side with short side in contact with table \perp
		<pre>#representation of wall#</pre>
1006.	Ю	so there's the wall
1000.	ri	\perp moves it to face WLD \perp
4007	RI	maybe?
1007.	RI ri	maybe? \perp Looks towards monitor room \perp
1007. 1008.	ri	\perp Looks towards monitor room \perp
	ri	\perp Looks towards monitor room \perp is that ok P?
1008.	ri	⊥Looks towards monitor room⊥ is that ok P? (calls across to assisting police officer in monitor room) Assisting police officer manipulates interview room camera from
1008. 1009.	ri IO	⊥Looks towards monitor room⊥ is that ok P? (calls across to assisting police officer in monitor room) Assisting police officer manipulates interview room camera from monitor room in acknowledgement of IO's question in 1008.
1008. 1009. 1010.	ri IO RI	⊥Looks towards monitor room⊥ is that ok P? (calls across to assisting police officer in monitor room) Assisting police officer manipulates interview room camera from monitor room in acknowledgement of IO's question in 1008. so that's. there's the wall

The semiotic properties of a tissue box outside of this setting and without the context of the surrounding talk, would bear no iconic likeness to an actual brick, stone, or concrete wall, and could arguably be arbitrarily linked to any concept. However, in this perspicuous setting, the WLD's verbal approximations, "waw" (line 998) which identified the semantic content of the following talk, triggered recruitment of this specific aid, in an example of *bricolage* (Erickson 2004), where the bricoleur (i.e. RI) made do with the resources available to hand to accomplish the work that needed doing. Taking advantage of its physical properties, the RI operationalised the box as representing the physical characteristics of the wall referred to in the allegation. The embodied actions involved in recruiting the

tissue box did not consist of modifying its properties in any way, other than manoeuvring it such that its short side was in contact with the table's surface, simulating an actual wall in real-life situations. Its semiotic potential was realised within the context of the proposal's surrounding talk and no further actions or talk were required in proposing it as an aid.

Proposal-making was a crucial aspect of an aided repair episode. Participants oriented to them as being the only interactional mechanism available for the purpose of recruiting new aids that were not already present or used before. However, IOs did not always recognise their interactional and communicative affordances. Therefore, as the next section demonstrates, RIs often upgraded their proposals in order to make them more specific and relevant.

4.5.2 Upgrading a proposal

To alert IOs to their embodied proposals an RI sometimes modified the characteristics of the aid so that its affordances became more specific and explicit. Those modifications often consisted of physical actions which to a lay observer, could be viewed as being disjunctive to the surrounding talk. However, they, on closer examination, contributed to the overall aim of proposing and repair. They often occurred as an embodied side sequence, similar in character to Jefferson's (1972) spoken side sequences, during which time an IO-WLD speech only interaction continued to occur in parallel. Once the aid was modified, thus highlighting its resourcefulness, an RI then reissued an embodied proposal but additionally upgraded it to an aided request. Modifying the characteristics of an aid by drawing, writing, moulding, and shaping it in some way, upgraded its specificity and unique affordances making it relevant to the interactional requirements of the moment. Proposals by their nature imply a symmetric deontic status but by upgrading an embodied proposal to a bold request, disrupted the deontic symmetry however it had the effect of interactionally progressing an interaction to accomplish its institutional goal.

For example, in an episode of repair in excerpt 4.7, the IO's institutional goal was to determine the WLD's username on her home laptop and the initial request for that information (line 537) resulted in a conversation breakdown which continued

over several turns (lines 538-548). The laptop in question was not present in the interview room and therefore it could not be used to repair the breakdown. The RI's embodied proposal consisted of placing a set of blank post-it notes on the table in front of the IO in her domain of scrutiny (line 541). However, that initial embodied proposal in the form of a relatively unrefined set of post-it notes was disregarded, its specific affordances unrecognised by the IO, resulting in the RI orienting to the IO's lack of uptake, as her being unaware of the aid's affordances.

The RI elected to re-propose, not with speech but instead to modify her initial embodied proposal in a specific manner. She accomplished this in two steps. Firstly, she altered the physical properties of the aid using *drawing* and *writing* to create a visual representation of a laptop's login screen (lines 544-547). The turns spent in this aid preparation was carried out separately and not in apparent alignment with the ongoing talk between the IO and the WLD. Once that preparation was complete, the RI then re-joined the main interaction however that re-joining was accomplished by her embarking on the second step of her aim.

In 549, and in the same turn as the IO's spoken talk, the RI interrupted the progression of the ongoing talk using the now-modified aid to re-propose (lines 548, 550), but directed the proposal towards the WLD. By holding the post-it note out to the WLD, directly in her line of vision, she interrupted the IO-WLD sequences of talk and had the effect of her intervention taking priority over all ongoing interaction. She acknowledged the IO's deontic rights to determining the interview topic implicitly, by constructing her embodied proposal on the same topic, but established and asserted her own epistemic responsibilities in relation to best practice with this WLD's communication needs, by modifying the communication modality. Furthermore, the RI upgraded her initial aided proposal to an aided request for information (lines 549, 552), which was in alignment with the IO's institutional goal. This upgraded re-issued modified and re-specified proposal was oriented to by the other participants as now having become part of an aided request, and took priority, its relevance having become apparent, resulting in the WLD's aided answer (line 553).

Excerpt 4.7

537.	10	can you tell me what name you'd type in as your usernames
538.	WLD	I put something in there and then NAME in.
539.	WLD	outlook com and then
540.	ri ^A	\perp gets out some post-its \perp
541.	10	and so when you type in.
	ri	\perp places post-its on table in front of IO \perp
542.	10	cause you've got a box for username and then you've got a box
		for there's a box for password
543.	WLD	yeh
544.	10	so the box for your username. just tell me what the word.
	ri	\perp picks up post-its \perp
545.	WLD	you type it in on your computer. or your phone.
546.	ri ^A	\perp \perp writes on post-it \perp >
547.	10	just tell me what it is you use.
547.	IO ri ^a	just tell me what it is you use. > \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
547. 548.		
	ri ^A	>⊥,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	ri ^a WLD	> \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, \perp you type it in and you type it in to your computer.
548.	ri ^A WLD ri ^A	> \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
548.	ri ^A WLD ri ^A RI ri ^A wld	> \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
548. 549.	ri ^A WLD ri ^A RI ri ^A	> \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
548. 549.	ri ^A WLD ri ^A RI ri ^A wld	> \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
548. 549. 550.	ri ^A WLD ri ^A RI ri ^A wld ri ^A	$\begin{array}{l}> \bot, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, , \downarrow \\ \text{you type it in and you type it in to your computer.} \\ \bot \dots \dots \text{starts to give post-it to WLD} \bot \bot \\ \text{can you write it down for IO} \\ \bot \bot \\ ^* \text{takes post it } \\ > \bot, ,, ,, ,, ,, ,, ,, , , \downarrow \end{array}$
548. 549. 550. 551.	ri ^A WLD ri ^A RI ri ^A wld ri ^A RI	> \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
548. 549. 550. 551. 552.	ri ^A WLD ri ^A RI ri ^A wld ri ^A RI wld	> \perp ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

- 556. ri ⊥RI reads it to herself⊥ wld *nods*
- 557. WLD yeh
- 558. ri \perp hands post-it to IO \perp
- 559. IO and that's the username.
 - io^A +reads what is written on post-it to himself+

Although from the above excerpt, it is clear that this particular WLD did use a computer and it could be argued she should have had sufficient skills in verbally repairing the breakdown, it is recognised that spoken language and literacy skills in individuals with an LD vary considerably, depending on the severity of their cognitive difficulties (Belva et al 2012). Some moderately affected individuals use computers and similar devices to access social media but demonstrate a limited awareness of other more linguistic affordances of computers. Other individuals with an LD who are relatively more cognitively able may be required to use the basic features of computing as part of a work-based vocational training programme, but still experience difficulties in using more sophisticated aspects of spoken language. Although details of participants' specific cognitive and linguistic difficulties were not disclosed to the researcher, it is likely that the WLD in this excerpt fell within the latter category and hence could not understand the IO's initial spoken request for her username. In any event, the RI who would have carried out a pre-interview assessment, oriented to the WLD as requiring a visual aid to repair the breakdown. Furthermore, the WLD made three speechbased repair attempts to resolve the breakdown herself (lines 538, 545 and 548) but they were all unsuccessful and it was only when the visual aid was proposed and upgraded by modifying its properties, thus emphasising its unique and topicspecific affordances, was she able to repair it.

At times however proposals to use aids were bypassed and this depended on participants' familiarity with a particular aid.

4.5.3 Bypassing proposals in repair

At this point in a different interview in excerpt 4.8, the WLD, IO and RI were seated around a table with a previously used communication aid (i.e. 'yes/don't know/no' symbol-picture strip) lying on a table in between them. See Fig 4.8 which is a simulation of the aid used in the interview, extracted from the researcher's bank of resources, using her license to reproduce images from commercially available software.

This aid had been used in this same interview on several occasions previously, with known-answer



questions³⁴ as well as with investigation relevant questions to check her understanding of the representations on the aid, since WLDs' linguistic abilities vary, even those with an LD³⁵. All participants had successfully demonstrated their understanding of the semiotic affordances of its picture and two symbols (for example, Appendix 7, Transcript 1, Lines 10, 289 and 293). The WLD had previously oriented to 'tick', 'shrug' and 'cross' as 'yes', 'don't know' and 'no' respectively.

Prior to excerpt 4.8 the discussion had revolved around an allegation of sexual assault (Appendix 7, Transcript 1) and the IO's institutional goal at this point was not to establish whether the assault had occurred, but to *confirm* whether the WLD had agreed to go to the suspect's house. In lines 355 and 357 the IO requested confirmation in his embodied recap of prior talk, "dave sai:d . to come to his house ?" "but you said no", which triggered an initial spoken response, "no" together with a left to right quick hand movement (line 358). However, her spoken "no" together with her hand gesture were viewed as a current or potential

³⁴ Questions whose answers are known to the questioner such as "Is your mum's name Annie?" or "What did I eat for breakfast today?"

³⁵ Chapter 6 addresses the semiotic affordances of aids more closely.

trouble source by the IO and he therefore needed further clarification, which he requested verbally in 359.

The proposal and aid preparation components were bypassed, and the WLD spontaneously recruited the now familiar symbol-picture strip, by directly pointing to the 'cross' on the already present aid in 360 drawing the IO's attention to that precise symbol and in so doing, added emphasis to confirm her spoken word.

Excerpt 4.8	Repair:	bypassing	aid	proposal

3	55.	10	okay:: dave sai:d . to come to his house ?	
3	56.	WLD	yeh	
3	57.	Ю	But you said no #picture-symbol strip present in shared space#	
3	58.	WLD wld ⁴	No *moves right upright hand horizontally in quick left-right physical action*	Conversation breakdown
3	59.	10	no? =	Spoken request FIRST PAIR PART
3	60.	WLD	=no	Response ^A
		wld ^A	*Points to 'no' symbol on picture-symbol strip* #representation of 'no'#	SECOND PAIR PART

Although it could be argued that the aid simply reinforced and confirmed her original spoken "no" (line 358) by using a visual modality, the IO oriented to its use as being sufficient to disambiguate the misunderstanding he was experiencing. It is also likely that encouraging her to point to the relevant symbol was carried out for the purpose of unseen ratified over hearers such as the jury should this case proceed to trial. The existence and retention of a familiar aid in the shared workspace eliminated the need for a new overt proposal as its specific affordances were now known by all. Its continued presence in the shared workspace served as a visual reminder to the WLD, for whom another aural reminder was oriented to as being unnecessary.

Proposals in insert and post-sequence repair sequences as seen above, typically then triggered pre-request and aided request-response sequences. All of these three phrases i.e. proposals, pre-request and aided request-response sequences were noted not only to repair a breakdown but also in the 3rd type of sequence expansion that emerged from these data, namely pre-sequence expansions. Since both repair and pre-sequence expansions consisted of pre-request and aided request-response phases, those interactional phases are examined together in chapter 5. The trajectory of pre-sequence expansions is examined next.

4.6 Pre-sequence expansions in planned intervention (PI)

4.6.1 Structure

Most current research on aid use (chapter 2 section 2.5) has covered their use as repair devices or as resources to supplement and complement everyday spontaneous social conversations (Bloch 2011; Carlsson et al 2014; Clarke and Wilkinson 2013; Saldert et al 2014; Wilkinson et al 2011;). However, these data have demonstrated that aids can and were used prospectively, in aided 79 presequence expansions, to orient a WLD to an upcoming request for new information, thus averting a possible future miscommunication or as Schegloff (2007a) asserts of speech only pre-sequence expansions, "to avoiding problematic responses to a base first pair part" (2007a: 57).

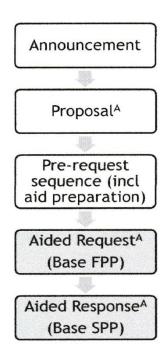
As introduced above, aid use in episodes of PI also included a proposal to recruit a specific aid and was then followed by the pre-request sequence which involved aid preparation, where the WLD was interactionally alerted to the upcoming request. In contrast with repair however, a previously spoken request did not need to be amended to an aided request and since a conversation breakdown did not feature, participants progressed directly to an aided request. This was interactionally important. Whereas in repair, interactional time spent on annulling and erasing trouble-generating linguistically inappropriate talk before linguistically more appropriate amended questions could be asked was essential, in PI, the interactional focus directly targeted a linguistically more relevant upcoming request. For WLDs with known difficulties in understanding and maintaining attention such as those with an LD, avoiding unnecessary time purging irrelevant talk and progressing directly to linguistically relevant questions, was

an interactionally and institutionally more efficient manner of eliciting new information.

However, as stated above, the additional action identified in PI, emerged at the beginning of an episode of PI, prior to a proposal. This action was identified as an announcement (section 4.4.2), and was primarily spoken but occasionally embodied. PI is schematically represented in Fig 4.9³⁶.

Announcements interactionally prepared the participants to the upcoming topic and *set the scene* for forthcoming aided talk-in-interaction. RIs treated them as cues to begin the proposal, pre-request sequence and in the same or next turn, commenced these pre-sequence expansions. This newly identified announcement phase which is unique to PI is examined next.

Fig 4.9 Episode of Planned Intervention: pre-sequence expansion



4.6.2 Announcements

Announcements had the interactional effect of determining the context (Enfield 2014) for the participants and served the same function as Schegloff's (2007b: 169) "topic-proffering utterance", thereby alerting the other participants to the theme of an upcoming sequence. They set the *topic* for upcoming talk, which was interactionally and semantically different from proposals, which focussed on the type of *aid* to be used. Announcements such as "we're now going to talk about the water" (interview 1), "so if we look at these pictures again" (interview 7) and "now you talked before. you got hairs in your mouth" (interview 2) were

³⁶ As noted in chapter 3, all superscript such as proposal^A, wld^A etc denotes aided actions.

announcing the upcoming topics of "water", "emotions pictures" and "getting hairs in mouth" respectively.

In these data, whereas the interactional purpose of an episode of PI oriented a WLD to an upcoming first pair part, an announcement, recruited at the beginning of that episode, interactionally emphasised that orientation by making it explicit. For WLDs who have difficulties understanding implied meaning, such explicit setting of the scene resulted in clear orientation to the upcoming topic. The announcer was typically the IO, thus establishing their deontic institutional rights to decide the topic for upcoming talk and announcements were usually followed by an RI generated proposal, establishing their epistemic responsibility to decide the way the announced talk could be progressed, as is analysed below.

Excerpt 4.9 is taken from an interview where the sexual assault allegedly occurred at an outdoors naturally occurring pond³⁷, as ascertained in prior interview talk. At this point in the interview, the IO established his deontic right to determine the current topic of conversation by announcing that they were going to continue talking about what happened at the pool (line 861). Neither of the other participants oriented to his announcement as being irregular or unexpected. On the contrary, the RI implicitly accepted that overt demonstration of deontic asymmetry by progressing the interview through proposing aids that were going to assist with that topic. In demonstrating compliance in that manner, she not only reinforced that deontic asymmetry (Stivers and Rossano 2010) in relation to topic choice but also established her epistemic responsibilities in relation to aid selection (line 862).

Although the IO's announcement was delivered *verbally*, the RI's proposal was offered nonverbally. She used an embodied action of physically positioning a set of coloured pictures into the WLD's domain of scrutiny, proposing the type of aids to be used in this section of talk but in order to ensure that the WLD understood the IO's announced topic of upcoming talk, she directed the WLD's attention to a specific picture of the pool by using the embodied action of pointing (line 862). In other words, the IO's deontic rights endorsed him to select the topic but the

³⁷ However, it is referred to as pool in this analysis, in accordance with the chosen word used by the participants.

RI's epistemic responsibilities legitimised her in selecting the type of aids. That proposal to determine the manner in which future talk was to progress was acknowledged and agreed by the IO, evidenced by him also pointing to the same picture in his subsequent talk (line 863).

Having announced the broad context for upcoming talk (i.e. "what happened at the pool"), the IO then made a further announcement that narrowed down the topic even further (line 865) which was once again accepted by both the WLD and the RI, as him being the participant with the deontic right to determine the direction of talk. In a previous section of the interview, the WLD had used a set of pictures of body parts to communicate that penetrative vaginal rape had occurred. At this point in the interview, the IO's institutional goal related to gaining an understanding of other allegations that had occurred at the same time. As before, the RI then established her epistemic responsibility to propose an aid by following that announcement with a second page of pictures, this time representing body parts (line 869). The tension between the IO's and RI's epistemic and deontic positions were established and maintained in congruence with each other: each one adhering to their respective institutional positions (cf. chapters 1 and 6), thus allowing the interview to progress fluently.

Excerpt 4.9 Announcement

861.	10	We're going to ca rry on talking about what happened at the pool
862.	ri ^A	\perp moves book of pictures closer to the WLD with left hand, while pointing to picture with right hand \perp # representation of 'pool in grassy area' #
863.	IO io ^A	and you said you were with. You and dave. + points to same picture in communication book +> # representation of 'pool in grassy area' #
864.	WLD	dave
0/5	ю	Now . you told me about him touching you .

- 866. WLD you yeh

- 867. IO with his hand \uparrow
- WLD hand yeh 868.

wld *Points to own chest with right index finger*

WLD si:

- 869. ri ⊥Opens book to page of body parts⊥#Representation of body parts#
 - WLD hi wiyi
- 870. wld^A *Points to picture symbol on page of body parts* #representation of female intimate body part#
- 871. IO And your vagina with his willy
- 872. WLD yeh wiyi
- 873. IO And what else

874. WLD ha wiyi bum wld *Points to own bum*

875. IO And the willy bum

Transition between the two components in this episode of PI progressed seamlessly from the IO verbally announcing the topic, and the RI proposing aids using embodied actions, through further verbal topic announcing (IO) and non-verbal aid proposing (RI), culminating in an aided request for information (line 873) which elicited an answer. Although the WLD pointed to her own body in her final answer relating to "what else" (line 874), she had already recruited pictures in the previous question in relation to her vagina (line 870), and therefore through the process of exclusion (having just completed talking about it and thus establishing the relevant body part accurately), she did not orient to needing to recruit pictures again.

Thus, the above excerpt has demonstrated an absence of a conversation breakdown, as do all of the remaining 78 episodes of PI. See Appendix 6A. Therefore, interactional time spent on quashing breakdown-generating talk and then refocussing a WLD's attention on linguistically relevant talk (as is done in repair) was not necessary. In PI therefore, a WLD is able to solely focus on relevant, pertinent talk, enabling evidence-elicitation to become interactionally more efficient.

4.6.3 Omission of proposal in PI

In a minority of instances of PI the overt aided proposal phase was bypassed by RIs and IOs alike and participants simply progressed to an aided request directly. This occurred in situations where a previously introduced aid in the participants' workspace had been used and oriented to accurately already and was then reintroduced into the WLD's domain of scrutiny, but on a different topic announced by an IO. Repetition was very much part and parcel of such proposal bypass and this repetition created a familiarity with the aid, as well as the format in which its specific affordances were exploited. By using the same aid, in the same questioning format thus reinforcing the type of answer expected, but modifying only one aspect of the question (i.e. the topic), dispensed with the need to repropose it.

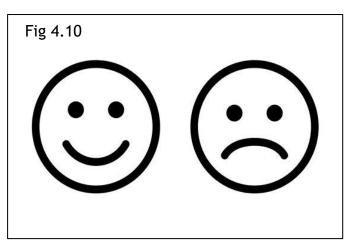
Excerpt 4.10 examines this point³⁸ in detail: Lines 323-331 relate to the 1st topic of what carer Brenda does to make the WLD happy, lines 332-337 stay on the same theme of what makes the WLD happy but this time the topic relates to the care home cat. In a similar manner, lines 338-346 relate to the next theme of what the cat does to make the WLD sad and finally lines 347-352, stay on the same theme of 'sadness', but relate to the topic of Brenda and what she does to make the WLD sad. The focus in this section is on lines 332-337 (1st theme, 2nd topic) and 347-352 (2nd theme, 2nd topic).

Two separate aids are used per topic: a pair of happy and sad pictures, which is introduced during the 1st theme, retained throughout and used repetitively across all four topics, and two other discrete one-off line drawings, created by the RI,

³⁸ Other aspects of aid use are discussed in chapter 5. Here, the focus is on the proposal phase of the sequence expansion.

representing Brenda and the cat, used alternatively, but in combination with the happy/sad pictures. See Fig 4.10³⁹.

When discussing the 1st theme and 1st topic, the happy/sad aids were proposed using talk as well as through the physical



embodied actions of picking the happy/sad picture strip up and holding it in the WLD's domain of scrutiny. The RI increased the salience of the emotion to be attended to by folding the aid so only the 'happy' picture was visible and of relevance. Once the RI progressed to the 2nd topic within the 1st theme, the previously used happy/sad pictures were not re-proposed: the RI oriented to their use as being accomplished satisfactorily and hence she simply pointed to it to draw the WLD's attention to it.

The RI then progressed the interaction on to the 2nd theme of 'sadness' and reproposed the happy/sad aid by making overt reference to it in line 339. Once she oriented to its use as being successful in relation to the topic of the cat, she did not re-propose it when advancing on to the topic of Brenda. Familiarity with an aid resulted in interactional progressivity taking priority.

Excerpt 4.10 Omitting proposal: Happy/sad pictures

Theme 1 (happiness), Topic 1 (Brenda)

323.	RI	so if we look at these pictures again	Proposal
	ri ^a	$\perp picks$ up happy/sad face line drawing strip and folds it so viewer can only see happy face \perp	evident
324.	RI	so if we look at the happy picture	Proposal
	ri	\perp points to drawing on table of Brenda>	evident

³⁹ The actual aids used formed part of the evidence and were not disclosed to the researcher as per the agreement between Cardiff University and the police Force, but Fig 4.10 is a simulation of the ones used during this section of the interview, extracted from the researcher's field notes.

325.	WLD	(xxx)	
326.	RI	so brenda	
327.	RI	anything brenda do.	
	ri ^A	ottouches line drawing of Brenda ot	
328.	RI	that makes WLD feel \wedge ha \downarrow ppy.	
329.	WLD	kiss make	
330.	RI	does she	
331.	WLD	yeh	
Theme	1, Topi	c 2 (cat)	
332.	RI	and what does the cat do that makes WLD feel happy.	Proposal
	ri	\perp points to the cat drawing \perp	omitted
333.	WLD	stroke it	
334.	WLD	yeh lovely	
	ri	⊥nods⊥	
335.	RI	soft ?	
	ri	\perp mimes stroking movement \perp	
336.	WLD	yeh soft yeh	
337.	RI	lovely that's super	
338.	ri	\perp turns folded strip over to show her the sad face \perp	
Topic 3	3		
339.	RI	what about the sad picture. does the ca t	Proposal
	ri ^A	\perp points to the line drawing of the cat \perp	evident
340.	RI	do anything that makes WLD sad.	
341.		(4)	
342.	WLD	charlie the cat	
343.	RI	(1)	
344.	WLD	he's awright he is	
	wld	*nods*	

345.	RI ri	oh the cat's alright is he ot points to the line drawing of cat on the table ot	
346.	RI	lovely	
347.	RI ri ^a	what about brenda \perp points to drawing of Brenda \perp	Proposal omitted
348.	RI ri ^A	does Brenda do anything \perp points to line drawing of sad face \perp	
349.	RI	to make WLD sad.	
350.	WLD	make fends with me	
351.	RI	make friends with you	

352.

WLD

yeh

In previous sections of the same interview, the RI had spent time establishing the WLD's understanding of the happy and sad pictures and she had used them in a similar format to ask about her feelings in relation to other members of staff. Therefore, although the WLD in this episode did not provide a conventionally expected answer to the question in lines 348 and 349 (such as something negative that Brenda might have done), the RI and IO oriented to the WLD's answer as her implicitly stating that Brenda only makes her happy. The RI and IO oriented to a more specific answer to that question as being institutionally irrelevant, as further talk on that topic was not progressed. The pictures of Brenda and the cat, and happy and sad pictures served to establish common ground i.e. to orient the WLD to the specific person and emotion being discussed during each of the above sections. That aspect of using aids to establish common ground is analysed in detail in the chapter 5. However, this excerpt has highlighted the instances when previously successfully used aids were not re-proposed i.e. when the proposal phase of an episode was bypassed but aids were still incorporated in to an episode of Pl.

The above analysis has explicated the way announcements were made in aided pre-sequence expansions, prior to proposal-making. The next section summarises the answer to the sub-RQ this chapter set out to answer.

4.7 Critical summary

This chapter has answered the first sub-RQ, firstly by demonstrating the way ABE interview participants oriented to aids and secondly by examining the sequential interactional phases during which aids were recruited in aided episodes.

It is argued that aids increased the specificity (and therefore strength) of talk in eliciting information, based on the *Gradual Shift* continuum (Park 1997). Embodied actions such as pointing, to identify a defined "domain of scrutiny" (Goodwin 2003: 221) and showing were recruited by IOs, RIs and WLDs to disambiguate their aided responses. Relying on speech only communication would have been unlikely to have elicited consistent answers in the way aids did.

Typically, an aid was used in interview as an augmentative device i.e. in addition to speech, however at times it was recruited as an alternate device and in those instances, it completely replaced speech. Participants oriented to them as equal to speech. There were numerous instances when aids were recruited as the only way in which a WLD's evidence could be elicited, when sole reliance on speech-only communication would likely have failed.

Aids were recruited in two interactional situations in interviews: in repair after a speech only conversation breakdown but more frequently in episodes of PI, where WLDs were prepared for an upcoming request-response sequence through sequences of aid preparation alerting them to the type of information that was required of them and the manner in which it was to be elicited.

In contrast with typical verbal repair where Self-initiated Self-repair is preferred (Schegloff 1979), analysis has demonstrated that a preference for Other-initiated Self-repair existed in WLD-generated conversation breakdowns and this was likely to be related to their communication difficulties. Communication aids employed in Other-initiated repair were recruited in insert sequences and post sequence expansions and consisted of three interactional phases which were aid proposal and pre-request sequences which consisted of aid preparation, (typically in that order, but not always so because of aid familiarity) and finally an amended overt aided request from the IO or RI.

Proposals to use a specific aid were typically issued by RIs, whose epistemic responsibility lay in recommending a specific type of aid to facilitate the interactions between the WLD and IO. Extending the current literature on proposal making, this analysis has demonstrated that proposals can be made through embodied actions and aids and without the need for talk.

Besides aid proposal and pre-request sequences, in PI an additional component i.e. announcement, was noted, whose presence was treated as relevant by participants. An announcement served as a context setting device, setting the topic for upcoming talk and whose production was biased towards an IO's deontic rights.

All types of sequence expansions elicited information not obtainable by speech alone. All participants treated aids as being indigenous to the interactions and as ratified contributions to the interaction: IOs and RIs did not insist in WLDs using speech. Aids and speech were oriented to as mutually contextualising and participants' actions throughout the analysis reflected this orientation. Aids reduced messages to their propositional content, a theme displayed repeatedly in following chapters.

The next chapter is concerned with an analysis of the specific communication aidfocused actions involved in the pre-request and aided request components of aidmediated episodes.

5 COMMUNICATION AID - MEDIATED ACTIONS IN PRE-REQUEST AND REQUEST-RESPONSE SEQUENCES

The last chapter demonstrated how aids increased specificity of interaction, the sequential interactional phases during which they were proposed and recruited, and the manner in which they modified episodes of repair and PI in ABE interviews (Figs 4.4, 4.5 and 4.9). The proposal phase (repair as well as PI) and announcement (in PI only) were examined and, in this chapter, the remaining phases i.e. pre-request sequences (which include aid preparation) and aided request-response sequences are analysed. The research question addressed in this chapter is:

What is the contribution of aid-mediated actions involved in pre-request and request-response sequences in eliciting information?

The analysis demonstrates that the use of aids enabled WLDs to *show* what happened when they lacked the speech ability to *say* what happened, thereby enhancing the quality of their evidence.

Section (5.1) examines how aids are used in pre-request sequences (the first of the two interactional phases examined in this chapter). This phase involves some manner of aid preparation in order to establish common ground, thus enabling a WLD to provide an answer in the next phase. That analysis is followed by an examination of aid recruitment in the last phase of an aided episode i.e. request-response sequences when used as (5.2) tools to select answers from option posing questions and as (5.3) physically manoeuvrable tools to demonstrate answers in response to instructions. Section (5.4) presents the variability of instruction design and (5.5) concludes with a critical evaluation of the analysis presented here.

5.1 Pre-request sequences

In these data, the reason why RIs and IOs recruited aids in pre-request sequences was to establish common ground, thereby interactionally preparing a WLD for an upcoming request-response sequence. As discussed in section 2.1.1, common

ground is crucial for establishing intersubjectivity (Clark 1996; Haselow 2012; Heasman and Gillespie 2019; Sacks 1992; Stalnaker 2002) and in these data this shared understanding was crucial in progressing an interview so that a relevant response to a subsequent aided request for new information could be elicited. In other words, when aids were recruited in pre-request sequences, they augmented speech and increased the specificity of talk in that interactional phase, the purpose of which was to progress the interaction to the next phase, thus facilitating a WLD's answer.

5.1.1 Establishing common ground

Typically establishing common ground is accomplished through unfolding turns of talk (Garfinkel 1964) but in this analysis, aids and associated embodied actions fulfilled that purpose as they were typically employed as an attention maintenance device and resulted in setting the context.

When an RI recruited an aid to establish common ground, the type of aid they selected was situation and witness specific. For example in the upcoming excerpt, although a line drawing of a 'house' could arguably be interpreted as any type of building such as a hospital, a school, or a care home, when viewed by an uninformed observer, its exact interpretation within a given situation was made relevant by the surrounding talk and embodied actions that related to a certain type of building. In other words, the common ground that a line drawing established in one situation was dependent on the embodied actions and talk that were linked to that particular concept, which in another situation, with different talk, and different embodied actions could have related to a completely different interpretation. In brief, the analysis demonstrated that common ground was situationally specific and depended on the IOs', WLDs' and RIs' orientations to an aid (such as a line drawing) at the time rather than other possible interpretations of that aid generally.

Consider excerpt 5.1 taken from the corpus of episodes of repair, where the institutional goal was to elicit the name of the suspect in response to the

question, "who?" Previous aided talk⁴⁰ had involved other residences that the WLD had formerly lived in. During each of those times, the RI had drawn an iconic line drawing of a house, written the name of each care home below the drawings and talk, at the time, revolved around people living in the houses indexed by those line drawings. Talk relating to people at those care homes personalised those line drawings so that irrespective of what an external uninformed observer might have deciphered them to be, the WLD (and potential jury⁴¹) oriented to them as being the residences she previously lived in.

Talk then progressed to the residence currently under discussion, and as

accomplished previously, the RI embarked on a similar procedure. Figure 5.1 is a simulation⁴² of the type of aid that was used during the interaction. The house-shaped line drawing was placed in the WLD's domain of scrutiny, within their shared o-space (i.e. the table in front of them) and as she continued to gaze at it, the RI attempted to personalise it by writing the name of the care home below it and thereby distinguish it from other similar building-like line drawings she had lived in previously. Reading and understanding the words would arguably have only been



beneficial to the IO, RI and unseen literate ratified over-hearers (such as the jury, counsel and the Judge) rather than the WLD. However rather than relying on the WLD's reading of the words in the address themselves, common ground was established by the practice of including the WLD in aid co-creation, including the process of writing, and using talk related to the line drawing (lines 419-430).

⁴⁰ See Appendix 7, Transcript 7.

⁴¹ As a reminder, this recording will be played in Court as the WLD's evidence-in-chief during trial.

⁴² As stated in chapter 3, all drawings used in interview were considered exhibits and although the video recordings were made accessible to the researcher, the signed Agreement between Cardiff University and the police Force excluded exhibits.

By the RI commenting on her own poor spelling, prompting the WLD to repeat the name of the address (line 428) together with mutual gaze (line 427), a shared understanding of the context for an upcoming request-response was established. Having secured her shared focus by exploiting the iconic features of the house-shaped line drawing and the practice of personalisation of the aid, together with the repetitive nature of the activity, similar to the ones that were completed in talk about previous residences, the RI demonstrated her continual orientation to maintaining their shared focus of attention, and this was evidenced by her indexing it again in her pointing (line 438).

Excerpt 5.1 Establishing common ground

416.	WLD	fairfield road
417.	RI	did you live at fairfield road?
418.	WLD wld	yeh *nods and smiles*
419.	RI ri [▲] wld	a:::h ok ⊥ writes below line drawing of house> *gazes at RI making marks on paper>
420.	RI	it's gonna be hard to spell that
421.	ю	fair::field
422.	WLD ri	fair:fiel:: ⊥nods⊥
423.	WLD	fair:fiel road
424.	ю	do you know which number
425.	WLD	four
426.	io ri ^a	+ writes on her pad of paper+

#undecipherable writing#

427.	RI	I don't know if I've spelt that right cause I'm not very good at spelling
	wld	>*,,,,,,,,,,,,,,,*
	ri ^A	$\perp making writing marks on sheet of paper \perp \perp$
428.	WLD	four fairfi::l road
	ri ^A	⊥⊥
429.	ri	⊥nods⊥
	ri ^A	⊥⊥
430.	RI	four fairfield road okey doke
	ri ^A	$\bot,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,$
431 to 4	436 not	reproduced here as irrelevant to current argument
437.		(1)
438.	RI	so so so who lived there
	ri	\perp points to sheet of paper on which was a line drawing of house \perp
	wld ^A	*looks at paper*
439.	WLD	dunno
	wld	*shakes head*
440.	WLD	ivan

The multimodality experience of aid and talk used in conjunction in a mutually contextual manner, firstly secured the WLD's focus of shared attention and secondly, maintained that attention for the duration of the episode, crucial in effective communication (Belva et al 2012) thereby laying the foundation for eliciting the institutional goal in ways that may not have been achieved via speech alone. The aided pre-request sequence enabled this WLD to attend to the ongoing activity thus establishing inter-subjectivity, in order to give her answer in line 440. Both were dependent on each other and the aid-dependent embodied actions of writing and pointing worked jointly to focus and maintain her attention to matters related to the care home under current discussion. In brief, the

resultant establishment and maintenance of common ground, resulted in biographical information in 440.

Although aid introduction, preparation and retention in the shared workspace was the most frequent practice utilised in establishing common ground, occasionally aid *removal* accomplished shared understanding in pre-request sequences as is explicated next.

5.1.2 Common ground: Separating and steering direction of talk

The attention difficulties experienced by WLDs include being unable to ignore irrelevant details in order to focus on relevant information (Milne and Bull 2006), which the majority of neuro-typical individuals accomplish unaided and automatically. This section of the analysis demonstrates how deliberate manual aid removal in pre-request sequences focused a WLD's attention consciously and purposefully to relevant information in order to establish common ground, thus facilitating her to answer the upcoming interview questions.

The same interview is used as a representative example. Having used aids to establish common ground as a means of eliciting the suspect's name in excerpt 5.1 above, the RI then proceeded to co-produce a second drawing, this time one that represented the suspect himself (see Appendix 7, Transcript 7). Common ground established in the process of co-producing that second line drawing triggered a disclosure that he had taken his clothes off (Appendix 7, Transcript 7, line 464). In subsequent talk the WLD also alleged that she was punched in the back but then alternated between those two allegations, demonstrating an absence of common ground between her and the IO in relation to which allegation she was referring to at any given point (Appendix 7, Transcript 7, lines 460-703). The RI's immediate interactional goal consisted of isolating the two allegations to establish a shared understanding in relation to which allegation was being referred to, and then secondly, to embark on a deferred interactional action of controlling the trajectory of the talk to progress the interview.

Her strategy consisted of dividing the pre-request sequence in to four sections that interactionally targeted different areas of common ground. See excerpt 5.2. First, the RI embarked on increasing the salience of the previously used line

drawing of the care home that had triggered a disclosure of the suspect's name, by cutting around its shape to highlight its physically demarcated features, and cause it to become the focus of attention for immediately following talk (lines 700-706). She used the physical actions of placing and retaining the now-prepared cut line drawing (house) in front of the WLD (line 704), within the shared workspace and concurrent with her talk in line 705 "so you said that ivan (0.5) punched you", the RI physically moved the line drawing of a 'house' directly into the WLD's domain of scrutiny so it could be viewed in its entirety, thereby increasing its salience even further. Rather than rely on the WLD to understand and retain her auditorily presented spoken words alone, she supplemented them with the visually presented line drawing. Although to an outside observer, a link between the 'punching' allegation and a line drawing of a care home could be considered ambiguous, not a likeness of and of lesser iconic relevance than of say, a line drawing of a 'person hitting', it was this line drawing of a care home that had triggered the suspect's name and the allegation of punching previously (see excerpt 5.1). The RI thus oriented to the semantic link between its semiotic affordance and 'punching', their meanings associated with each other "by usage" (Peirce 1893-1913: 5).

Second, the RI modified the WLD's domain of scrutiny by *pointing*, thus bringing her attention exclusively to a 2nd line drawing which was a cut-out of the suspect (line 708) that was lying on the table in the shared o-space on the table between them and had been used previously in prior talk in relation to 'taking clothes off' (Appendix 7, transcript 7, lines 442-464). The RI orientated to the association between the 'suspect' cut-out and the allegation of 'taking clothes off' in subsequent talk (line 708). This association by prior usage was shared by the WLD, whose gaze at the suspect cut-out, together with her talk continuing the topic initiated by the RI, "~can't do that. in the bedroom~" demonstrated her shared understanding of the topic and the aid referenced allegation (i.e. took clothes off).

Having established the WLD's attention to two different allegations using two separate indexing actions with two dissimilar aids, in line 710 the RI commenced on the third section of the pre-request sequence i.e. her deferred interactional goal of separating the topics in order to assist with the attention and communication difficulties experienced by individuals with an LD (Belva et al 2012) by asking, "so can we. talk about one thing at a time which one, are we gonna talk about".

After the IO took the floor and selected the line drawing of a person, thus announcing the topic by pointing to it (line 711), the RI embarked on the fourth physical action of *removing* the unrequired 1st aid (care home) from the WLD's domain of scrutiny (line 713), thus instantly modifying the framework within which further activity could be made relevant (Goodwin 2003). For these interview participants, those specific iconic representations i.e. a cut-out of a care home and a line drawing of a suspect were linked by prior usage to 'punching' and 'taking clothes off' respectively (see excerpt 5.1). By removing one aid from the interactional workspace and the visual field of the WLD, but retaining another, intersubjectivity was maintained and the current focus of common ground was established unambiguously i.e. the allegation referring to the suspect's clothes being taken off.

Once common ground in relation to 'clothes removal' was established, talk could then progress to the request phase of the episode in line 715, "what happened". The WLD was enabled to progress that aspect of the allegation further by adding that the suspect entered her bed (line 721) and then that the back punching ocurred after bed entry, thus establishing the relation between the two allegations.

Excerpt 5.2 Separating and steering talk

- 700. RI I've got some pictures and I'm cutting out the pictures for some of the things that you're **sa**ying . so.
- 701. WLD \sim you ca can't do that⁴³ \sim

⁴³ This phrase was repeated in 709 and several times before and after its occurrence in 701. It was first used immediately after she disclosed about being punched and the suspect's clothes being taken off. Neither the IO nor the RI used words to agree with the WLD's assessment of the situation, nor did they offer reassurance to her, in keeping with ABE guidelines that state maintaining neutrality at all times is crucial. It is likely that these repetitive utterances served as a self-soothing technique since none was forthcoming from the IO and RI.

702.	RI	SO . just so that doesn't for get what you're talking about .
703.	RI	cos its gonna help us
	ri	>⊥,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
704.	RI ri wld + io	so::: you said that ⊥positions 1 st line drawing on table⊥ *+⊥ All look at line drawing *+⊥ #representation of a house#
705.	RI	so you said that ivan 0.5 punched you
	ri ^A	$\perp moves$ line drawing of care home directly in front of WLD \perp
706.	WLD	yeh in the back yeh
707.	RI	and you Also said that ivan
708.	RI ri ^A wld + io	took clothes off ⊥points to 2 nd line drawing on table⊥ *+⊥ All gaze at 2 nd line drawing of suspect *+⊥ #representation of ivan#
709.	WLD	\sim can't do that . in the bedroom \sim
710.	RI	so can we. talk about one thing at a time which one , are we gonna talk about
	10	(1.5) that one
711.	io ^A	+points to the 2 nd line drawing + #representation of person#
712.	ri ^A	\perp points to the same line drawing as IO \perp
713.	RI ri ^₄	you told us that ivan took his clothes off \perp moves 1 st line drawing (house) away from work space \perp
714.	WLD	\sim yeh in the bedroom \sim
715.	RI	what happened
716.	WLD	(0.5) said he's gonna phone the police to make
717.	ri	(2) looks at IO

- 718. IO what happened . After he took his clothes off
- 719. WLD banging the doors in his bedroom
- 720. WLD coming in my at in my bedroom
- 721. WLD (1) in my in my in my \uparrow bed \uparrow

Lines 722-738 not reproduced here.

- 739. IO so . what did ivan do when he went in the bed io^A \perp points to suspect/ivan cut-out \perp
- 740. WLD (1) ~ punch punch meek ~
- 741. IO he punched you
- 742. WLD ~ yeh in the back ~ wld *nods*

Aids and their associated physical actions served to establish and maintain common ground. They provided the WLD the opportunity to disregard a complex combination of (what would be to her) potentially confusing speech sounds and only attend to a visually presented and linguistically less demanding aid. Modifying the WLD's domain of scrutiny that initially consisted of two potentially conflicting concepts, to a visual field that then contained only one concept, facilitated her attention to be focussed on the current relevant topic, eliminating the danger of interference from another.

Allegations that were initially merged in the WLD's oral utterances were subsequently disentangled and their relationship with each other was clarified. Whereas a hypothetical "we're not talking about punching⁴⁴, we're talking about taking clothes off⁴⁵" would have sufficed with a linguistically-able witness, with this WLD, the bodily action of *physically removing* the unwanted line drawing, but retaining the relevant one served the same interactional purpose, but was accomplished explicitly. In other words, the visual physical removal of the line

⁴⁴ Previously established by prior usage in excerpt 5.1 that punching was linked to the cut-out of a care home.

⁴⁵ Previously established by prior usage that 'taking clothes off' was linked to line drawing of suspect.

drawing of the care home was oriented to as the equivalent of an aural "we're not talking about punching" and the retention of the line drawing of the suspect was oriented to as "we're talking about taking clothes off".

Disambiguating talk in this manner not only faciliated interview progressivity by maintaining intersubjectivity but also elicited new information in a way speech alone was unable to accomplish here. Whereas this section analysed the manner in which aids were recruited by augmenting talk in preparation for an upcoming answer (i.e. in pre-request sequences), the next two sections are concerned with how they were used as devices to answer with in the final request-response sequence, either augmenting or replacing talk.

5.2 Aids as tools to answer option posing questions

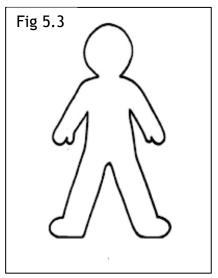
Aids were used as tools for WLDs to answer option posing questions, however, in line with ABE recommendations (Ministry of Justice 2011), RIs managed them in a manner that reduced bias. More specifically, on no occasion were only two choices offered thereby reducing the risk of acquiescence. In the following excerpt, a line drawing of a person was used, offering the possibility of the WLD selecting any number of relevant body parts in relation to the IO's question.

In prior talk reproduced in Appendix 7, transcript 2, the WLD had used the word 'cock' but the IO's institutional goal was to ascertain *his* understanding and use of that specific word, as is recommended when interviewing WLDs with immature language abilities (Ministry of Justice 2011) in consideration of the possible future understanding needs of unseen ratified over-hearers such as counsel, the judge and the jury. The IO had tried eliciting a more conventional name for that body part (lines 494-497) but that was unsuccessful because the WLD was unable to remember the "real" name for cock (line 498). In lines 500-513 (Appendix 7, transcript 2), the IO and RI engage in discussion about aids using a previously discussed picture and correct identification of this aid marks the beginning of excerpt 5.3.

Here, in order to disambiguate the WLD's answer the IO announced her chosen topic, "RI's got a picture of a man." (line 514) "and I want you to show me what

you mean by the word cock" (line 516). This talk was made relevant by the RI's

contemporaneous embodied actions of retrieving a black and white line drawing of a person and placing it in the interactional o-space in front of the WLD. A simulation of the line drawing used is presented in Fig 5.3, extracted from the researcher's field notes. Although the line drawing did not have a face drawn on it which could have been used to unambiguously indicate that it represented the front of a man, at this point in the interview, both the IO (line 516) and WLD (lines 522



and 527) oriented to the current line drawing as a man's front.

The WLD demonstrated his readiness to engage by his embodied action of leaning towards and gazing at it. The IO selected the more aid-focussed discursive token "show" in preference to a more speech-oriented word such as "tell", emphasising the participants' orientations to aids as manipulatable tools for talk. In alignment with the IO's carefully worded spoken request, the RI reinforced and upgraded the IO's earlier request even further by physically handing him a pen to use to "show" the relevant location.

After a pause in which time the WLD gazed at the aid, scanning its affordances including the many different possible locations on its body, he provided his answer "it's that one" (line 521). This spoken answer which would have remained ambiguous and irrelevant on its own, was made relevant because the WLD used an embodied action i.e. he pointed to a location between the two legs and lower body of the drawing (line 522). However the location of this point, although captured on the video recording for unseen ratified over-hearers such as the jury, counsel and the judge, was then also made permanent by the WLD's further embodied actions. The WLD upgraded and particularised his answer by circling the relevant position of the "cock" on the line drawing (lines 526-536), thus obtaining a permanent record of his answer that would be useful in a future trial, should the case go to court.

The WLD's options were not restricted by use of the aid in this manner and therefore the risk of him acquiescing was unlikely. Not only were all possible body part options available to the WLD to select from, but the process of using the aid afforded the WLD the time and opportunity to record his answer unambiguously.

Excerpt	5.3 Aı	nswers to option posing questions: Cock
514.	IO ri ^a	RI's got a picture of a man. $\perp puts$ hands in bag \perp >
515.	WLD	yeh
516.	IO ri ^a	and I want you to show me what you mean by the word cock> \perp starts taking hands out of bag,,,,,,,,, \perp
517.	ri ^A	\perp places cut-out of human figure on table. \perp
518.	wld ^A	*leans forward and gazes at it.** >
519.	ri	\perp gives pen to WLD \perp
520.	WLD	(3)
521.	WLD	it's that one
522.	wld ^A	*points with index finger to crotch area on drawing* >*,,,,,*
523.	10	its that one is it?
524.	WLD	yeh
525.	Ю	right.
526.	WLD	circle it?
527.	wld ^A	*starts making circling marks on paper**>
528.	Ю	yeh.
529.	wld	*circling marks on paper>
530.	ri ^A	\perp RI gazes at the paper \perp
531.	IO wld ^a	that'll be good.
532.	WLD	that be good.

	wld ^A	*pen stays on paper* >
533.		right ** >
534.	WLD ^A	*moves pen away from paper*
535.	IO wld ^a	so that's what you mean by the word cock izzit. *looks at paper* >
536.	WLD	yeh

The aid increased the WLD's potential to answer as it aligned with visual processing which is known to be stronger than auditory-oral processing for people with LD (Cherry et al 2002; Dulaney and Ellis 1991), thus minimising barriers such as memory and word finding difficulties.

When aids were used as tools to answer option-posing questions, they were used to select relevant answers relating to concrete *things* e.g. body part, location of an allegation. However aids were sometimes recruited in innovative and previously undescribed ways in order to elicit evidence about more abstract concepts such as *positions*, *multipart actions and events that occurred over time*, as is analysed in the next section.

5.3 Aids as physically manoeuvrable tools in instruction giving

This section examines the manner in which aids were recruited as physically manoeuvrable resources in instruction-giving, retaining the function of institutionally recommended open questions but minimising the complexity of them. As is the case with many objects used in conjunction with talk in other institutional settings whose affordances are not easily understandable (Mondada 2014a), the properties and manner of use afforded by some aids such as wooden mannequins were not necessarily intuitive and needed to be introduced in a non-leading manner. Therefore, IOs and RIs often recruited sequences of instructions in pre-request and request sequences to make apparent their affordances but the form and content of the instructions were highly dependent on a WLD's familiarity

with the aid and their linguistic ability to understand their situated relevancies. These dependencies were continuously monitored and contemporaneously modified by RIs as the next section demonstrates.

5.3.1 Eliciting positional information

Chapter 4 analysed the way a proposal to use an empty tissue box (representing a wall) and a wooden mannequin with a red sticker⁴⁶ (representing the WLD) was made. Excerpt 5.4 here, is extracted from that same interview but on a different investigation relevant topic, where the same aids were used to establish her physical position in relation to the wall, however instructions were required in order to elicit this piece of information. Although the WLD had oriented to the red mannequin's likeness as representing herself, she did not spontaneously recognise its affordances i.e. its ability to be moved along different axes, the ability to manoeuvre its limbs and head, align the direction to faced towards other objects such as the tissue box and modify its inclination by bending it at various joints. She demonstrated her lack of know-how by simply moving it on the

horizontal axis, an inch from its original position and facing herself, in the same direction that it was handed to her (line 1012 Fig 5.4A).

Orienting to her uncertainty and lack of competence in using the red mannequin, the RI offered assistance in 1017 using a less specific, "what shall I do with WLD, standing?", while holding and retaining the mannequin in the standing position that it had been placed in by the WLD. However although the WLD confirmed that she did want the mannequin to be retained in the



standing position (line 1018) the RI oriented to her response as being inadequate, and the RI upgraded that initial request to a more specific and directly worded

⁴⁶ Henceforth referred to as the 'red mannequin'.

instruction (line 1020): "where WLD where? That's the wall. where?" Although the RI was offering assistance in physically supporting the red mannequin if needed, she was in reality instructing the WLD, as the participant with epistemic knowledge of the allegation, to tell her the position the red mannequin should be manoeuvred to.

This directly worded, brief instruction expected immediate compliance (Curl and Drew 2008; Craven and Potter 2010; Mondada 2014d) however since immediate compliance was not forthcoming as expected, the RI upgraded the wording of her instruction further to become even more direct in a repetition of her original instruction, "that's the wall" (line 1022) and "where?" (line 1024) all the while retaining the red mannequin in the WLD's domain of scrutiny as a focus of shared attention. The emphasis on key words focussed the WLD's attention to the instruction on hand, excluded extraneous and irrelevant talk, eliminating verbal 'noise', expected instant action and resulted in immediate compliance. This was accomplished in the WLD sliding the red mannequin horizontally across the table to come to a rest in a position in front of the box and additionally manoeuvring it so it faced the direction of the tissue box with its wooden hands on the tissue box (lines 1025-1032, Fig 5.4B).

These cumulative, directly worded, progressively upgraded, key word instructions from the RI had the effect of enabling the WLD to exploit the mannequin's affordances, because they related to blunt physical actions she was required to accomplish thus facilitating her answer. A simple question-answer sequence is unlikely to have generated the required aided (or speech only) response from WLD however the multimodality aided experience afforded WLD the facility to demonstrate she what was linguistically unable to accomplish.



Excerpt 5.4		WLD's hands on wall					
1010.	RI	so that's. there's the wall					
1011.	WLD	that the wall.					
1012.	WLD wld ^A	(0.5) i here (Fig 5.4A) *Holds mannequin steady, facing herself about a foot in front of tissue box**>					
1013.	WLD wld ^A	walk here *moves red mannequin an inch or so closer to tissue box**>					
1014.	wld ^A	* holds red mannequin still**>					
1015.	RI ri ^a	Do you want me? \perp reaches towards the red mannequin \perp $\perp>$					
1016.	RI ri ^a	[Shall I make it? \perp Holds the red mannequin \perp $\!$					
1017.	RI ri ^a	what shall I do with WLD , standing? $\bot RI$ holds the red mannequin upright \bot					
1018.	WLD	yeh					
1019.	RI	standing					
1020.	RI ri ^a	[where WLD where? that's the wall. where? [ot flat upward facing open palms move in circular movements ot					
1021.	WLD	(1)					
1022.	RI	That's the wall.					
1023.	WLD	yeh					
1024.	RI	where?					
1025.	WLD	(3)					
1026.	wld ^A	* moves the red mannequin in front of the tissue box by sliding it across the table in an upright position, facing the box**>					
1027.	RI	shall I hold it?					
1028.	WLD	yeh					

	ri ^A	\perp holds red mannequin in front of tissue box, facing box \perp \perp >			
1029.	10	So you were st:: anding			
1030.	WLD wld	yeh *Raises both hands up in front of her*			
1031.	Ю	with your hands			
1032.	WLD wld ⁴	yeh here *Points to tissue box* #representation of wall#			
1033.	wld ^A	*moves red mannequin's hands on top of tissue box* (Fig 5.4B)			

Contrary to instruction giving in pedagogical or other settings, in these data, the RI as instructor was less knowledgeable about the allegation than the instructee (WLD), but nevertheless recruited instructions to enable the WLD to manoeuvre the aid, relying on the situation for them to gain relevance and designing them with her recipient's linguistic and interactional needs in mind. Pauses between instruction giving and expected compliance were not filled but remained unfilled, oriented to as being necessary, providing time for the WLD to process them and then comply. Additionally, the WLD was enabled to provide *positional* information that would typically have been elicited via an open question, a non-viable route here.

5.3.2 Eliciting multipart happenings

In addition to eliciting information about a single action, recruiting aids in instruction giving enabled the telling of *multipart happenings*, chronologically, sequentially, and oriented to in space and time. They enabled WLDs to provide answers to open questions such as "tell/show me what happened?" For example, having established the position of the WLD in relation to the 'wall', in this same interview, the IO launched the next episode of instructions relating to a new institutional goal, one concerning the suspect and a series of his interactions with

the WLD. A mannequin with a blue face⁴⁷ was selected to represent the suspect in this episode, thus visually distinguishing it from the red mannequin (WLD).

In excerpt 5.5, taken from the corpus of PI, the IO commenced his instructions by once again using the discursive marker, "show" rather than 'tell' (line 1038) as in, "can you show me where dave was". Now familiar with the manoeuvrability of the red (WLD) mannequin, the WLD began her aided response in real time (line

1039) by sliding the blue (suspect) mannequin towards the red mannequin on the table, together with spoken commentary, "he walk here" and then completed her response in 1040 (Fig 5.4C) by positioning the blue mannequin behind the red one, in the same direction as the red mannequin while adding, "one. two. three here" (lines 1041, 1042).

On their own, these words were semantically ambiguous in relation to



the institutional goal and did not conform to expected grammatical rules. However that otherwise meaningless talk was not viewed as "defective" (Streeck et al 2011: 1) because it was juxtaposed with aided embodied physical actions, each being made relevant in the context of the other. The WLD's message was treated as being unambiguous and understandable to all participants. As these physical actions were being video recorded, a permanent record of her evidence was being created and could be played to ratified over-hearers such as the jury, counsel and the Judge.

⁴⁷ Henceforth referred to as the 'blue mannequin'.

Excerpt 5.5		Suspect walking up and standing behind WLD		
1038.		Now can you show me where dave was? *starts straightening blue mannequin on her lap*		
	ri ^A	\perp holds red (WLD) mannequin in front of tissue box 'wall' \perp >		
4000	WLD	he walk here.		
1039.	wld ^₄	*slides upright blue (suspect) mannequin across table towards red (WLD) mannequin **>		
	10	° °He walks here ° °		
1040.	wld ^A	*Holds blue (suspect) mannequin behind red (WLD) mannequin, facing same direction as red mannequin *> (Fig 5.4C)		
1041.	WLD	one. two. three here.		
1042.	WLD	hand here. hand here.		
1043.	10	[so dave		
1044.	IO io ^a	was standing be hi nd you +Points to the red and blue mannequins WLD and RI are holding+		
1045.	WLD	yeh		
1046.	10	and you had your hands on the wall.		
1047.	WLD wld ^A	yeh wawl >*		

The use of repetition, incrementally upgrading instructions and allowing increased time between instruction giving and compliance, offered this WLD the potential to provide her evidence that speech only interviewing would have been unlikely to solicit. Had the RI and IO not instructed the WLD on how to manipulate and exploit the mannequin's affordances, it is unlikely that it would have been possible to recruit it effectively to give multipart action-based evidence and her solely spoken responses would have remained ambiguous and evidentially inconsequential.

Aided instructions delivered in this manner served the function of open questions which are institutionally (Ministry of Justice 2011) and interactionally (Grant et al 2016; Milne and Bull 2006) preferred but that are linguistically challenging for individuals with an LD (Belva et al 2012, Perlman et al 1994).

However, a single category of aid (such as three dimensional physical objectbased aids) was not restricted to being used to the exclusion of another type (such as two dimensional paper based aids). Sometimes a combination of two different types of aids were used in the same aided episode and their recruitment depended on the interactional and institutional needs of the moment as is detailed in the next section.

5.3.3 Combining types of aids in instruction giving

This section demonstrates the way two dimensional paper-based aids and three dimensional objects were used in the same episode to target the IO's overarching institutional goal which was to identify the steps in which an alleged rape occurred. The task was divided into three different but linked institutional sub-goals. In excerpt 5.6, the IO first worked on confirming that he had understood the WLD's previous communication correctly (lines 1048 and 1049), and then proceeded to the second part of his institutional goal (lines 1051-1055) which elicited the WLD's embodied answer i.e. positioning the blue mannequin so that its front surface was in direct contact with the red mannequin's back surface. He then commenced on the third part of his objective, which was to seek confirmation of the location of the penetration that had been disclosed previously (line 1056), "and where did he put his willy? Tell me".

During the first section of the episode, the WLD's hands were engaged in positioning the two 3 dimensional mannequins but she then gazed towards the previously used set of 2 dimensional pictures of body parts (line 1057) which the IO and RI oriented to as an embodied request in order to answer more accurately. Once the IO and RI oriented to her inability to comply and thereafter remedied it (lines 1058 and 1059), the WLD provided her answer using an option-posing strategy previously explicated. By using a set of pictures of body parts, in combination with the mannequins and tissue box, the WLD was enabled to co-produce evidence unlikely to have been obtainable via speech alone, or via a single type of aid only.

Excerpt 5.6		Yes/don't know/no, mannequin, pictures of body parts		
1043.	10	[so dave		
1044.	IO io ^a	was standing be hi nd you +Points to the red and blue mannequins WLD and RI are holding+		
1045.	WLD	yeh		
1046.	10	and you had your hands on the wall.		
1047.	WLD wld ^₄	yeh wawl >*		
1048.	10	is that right?		
1049.	WLD wld ^A	yes *points to 'yes' picture on 'yes/don't know/no' set of pictures* # representation of 'yes/tick' #		
1050.	ю	and in this position where did dave put his willy		
1051.	WLD wld ^A	hiyuh *moves the blue mannequin slightly further back and then closer once again, so that the front of it is touching the back of the red (WLD) mannequin*		
1052.	IO wld ^a	Ok so you're. right up close *		
1053.	WLD wld ⁴	yeh *		
1054.	IO wld ^₄	and when you were in that position did dave's willy go into you? *		
1055.	WLD wld ⁴	yeh *		
1056.	IO wld ^a	and where did he put his willy? Tell me *		
1057.	WLD wld ^a	(0.5) *gazes at book of pictures* *		

1058.	10	I'll hold that for you.			
1059.	RI ri ^a wld ^a	I'll hold that ⊥holds blue (suspect) mannequin with left hand⊥ ⊥Places red mannequin leaning against tissue box⊥ >,,,,,,* lets go of both mannequins*			
1060.	IO ri ^A io	There you go you show me where did he put his willy ⊥ uses free hand to open communication book⊥ #pictures of body parts# +Leans forward to gaze at pictures+>			
1061.	RI ri ^a wld ^a	pictures of body parts \perp holds book open to page of icons in front of WLD \perp \perp > * points to picture of female body part*			
1062.	IO io	In the vagina. °quite consistent okay° >+,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,+			

As is the case in instruction giving in other settings, each successive embodied object-based instruction was semantically linked to the prior (Hutchins and Nomura 2011) and compliance prompted further stepped instructions, each of which were dependent on compliance of the previous instruction (Button 1992), however crucially, a unique difference observed in these data needs highlighting. In contrast with instruction-giving in other settings where more knowledgeable instructors instruct less knowledgeable instructees (cf chapter 2), in these data, instructors who were less knowledgeable in relation to the allegation (i.e. RIs and IOs), delivered instructions to more knowledgeable instructees (WLDs), and in so doing, facilitated the prime and overarching institutional goal of eliciting new information, thereby enhancing the quality of a WLD's evidence.

Furthermore, in contrast with speech only conversations, where pre-request sequences frequently dispense with the need for a final overt request sequence (Levinson 1983), in these data, an overt, unambiguous request for new information was overwhelmingly observed. Even though aided pre-request sequences interactionally prepared WLDs for an upcoming request, IOs did not

assume WLDs had automatically oriented to their imminent request and explicitly stated that actual request. In other words, pre-request sequences oriented WLDs to the general topic of discussion, but they were unable to orient WLDs to the specific propositional content of the investigation relevant information required. Therefore in these data, IOs made explicit unambiguous requests for information after aided pre-request sequences.

5.4 Variability of instruction design

The above sections have explicated the manner in which RIs and IOs designed directly worded instructions to lay WLDs to get something done. However, when it was necessary to tap into each other's professional expertise, RIs and IOs addressed each other, typically using more indirect wording, indicating their orientation towards each other's entitlements and contingencies (Curl and Drew 2008; Craven and Potter 2010) as determined by their respective deontic and epistemic positions. In other words, they oriented to being less entitled to instruct each other, positioning themselves with some consideration for each other's contingencies, more than either of them did when instructing WLDs.

Consider excerpt 5.7 from an episode of PI, where the IO's institutional goal was to establish the *position* of the suspect's genitals in relation to those of the WLD during an allegation of sexual assault. Although in previous interview talk, the WLD had alleged that penetration had occurred (Appendix 7, Transcript 1), by confirming the WLD's understanding of position, the IO demonstrated his legal obligations in terms of establishing a shared vocabulary (Ministry of Justice 2011). However, to accomplish this, the IO necessarily oriented to the RI's greater epistemic knowledge of LD, and her responsibilities in terms of aid selection and use. He therefore requested her assistance (to get her to 'do' something) but used an indirectly worded instruction, also including the word "please", thereby downgrading the instruction further (line 904), "So. now can we demonstrate inside and outside . in some way please . so we can get that right". The IO did not use "please" when talking via the microphone to his colleague monitoring the equipment in the next room, indicating an acknowledgement that

he was relatively less entitled to instruct a deontic equal in comparison with interactions between him and the WLD.

The RI's response using equally indirect wording (i.e. "wondering") in her proposal to use aids (line 905), demonstrated the tension between each other's deontic and epistemic positions (Ekström et al 2009; Stevanovic and Peräkylä 2012). In abstaining from using indirect wording with the WLD, the IO and RI demonstrated their orientation to the need for compliance. More direct wording (i.e. "show me" and "put" rather than "could you please show me?" or "wondering if you could put") was noted throughout the data, when IOs and RIs issued instructions to WLDs.

The aids used in this episode were a previously used empty tissue box that formerly represented a wall, and a newly introduced green wooden brick. Whereas in the same interview, previously the physical characteristics of the tissue box i.e. its flat surface, two long sides and two shorter sides iconically represented a wall, in this episode, it was the tissue box's opening from which tissues are usually extracted, that participants oriented to as being relevant to the discussion. Its top opening was jointly agreed to represent 'inside' (line 906) in relation to intimate female body parts.

Excerpt 5.7

904.	10	So. now can we demonstrate inside and outside . in some way please . so we can get that right
905.	RI ri [∧]	yeh I'm just wondering if we can use (0.5) that . that tissue box \perp places tissue box in front of WLD on table \perp
906.	IO ri	yeh there's a ho le in that tissue box \perp moves box on table closer to the WLD \perp
907.	io ri	+lifts tissue box off the table and then puts it back on the table+ \perp reaches under table \perp
908.	RI ri ^₄	and here's some bricks ot brings out a green brick and places it next to tissue box ot

909. WLD hehe

910. IO and here's a brick

Thus by proposing the use of the tissue box in this manner in the above excerpt and the green wooden brick in excerpt 5.8 which follows next, the WLD's superior knowledge of the allegation (i.e. Heritage's (2014: 392) "epistemics of experience") was used to advantage by the RI's superior knowledge of LD (i.e. "epistemics of expertise").

Although the choice of aid is not under detailed discussion in this section, a brief note on the selection of this particular aid will be made. Aids are witness specific and the principle of *one size fits all* does not apply. Through detailed preinterview assessment explicated in chapter 1, RIs become cognizant of a WLD's individual communication difficulties and through a process of dynamic intervention-based assessment, they determine the likelihood of an aid's suitability in relation to a specific WLD. In proposing that a tissue box be used, in another example of bricolage, where the bricoleur makes do with materials to hand, shaping them to suit the interactional needs of the moment (Erickson 2004) (cf section 4.5.1), the RI demonstrated an orientation to its appropriateness as a relevant aid in this specific instance with this specific WLD.

In contrast with the IO's request to the RI above, compare excerpt 5.8 in lines 911-913 where the IO directs the WLD, repeating previously used vocabulary⁴⁸ using blunt instructions, "so let's think about. dave." "and his penis" "and your vagina" indicating his orientation to his own high entitlement and relatively lower WLD contingency. The IO assigned a symbolic link between the green wooden brick and the male body part, "show me with this brick" (line 916), and proceeded to use that bricolaged aid in his next instruction. He upgraded his directly worded instruction by offering option-posing direct utterances "whether it was inside" (line 917), emphasised with the embodied action of placing the green brick on the table in front of the WLD, and "or outside" (line 919), which was in turn

⁴⁸ The names of body parts used by the IO in 908 and 909 were used previously in the interview by all participants and the IO was re-using them here. See Appendix 7 interview 1.

emphasised with pointing (first to the opening of the tissue box and then to a space outside the box to offer a choice).

Excerpt 5.8

911.	10	so let's think about. dave.
912.	Ю	and his penis.
913.	IO wld	and your vagina *Points to own body part*
914.	WLD	saina
915.	WLD	yeh
916.	IO io ^a	show me. with this brick. +holds green brick in his hand near tissue box+
	10	whether it was inside
917.	io ^A	+places brick on table in front of WLD+
917. 918.	io ^a IO io ^a	+places brick on table in front of WLD+the box.+Points to the opening on the top of the tissue box+
	ю	the box.

By offering 'outside' as the last heard option and thereby increasing the likelihood of the WLD agreeing with that last-offered option, should the recency effect (Murdock 1962) have impacted her answer, the IO's instruction design had the effect of further confirming that the WLD had understood the representational features of the tissue box. Further evidence of the WLD having understood the box's altered representation lay in her response to its use in subsequent talk later in the interview (Appendix 7, Transcript 1, lines 926-932), in relation to the position of the WLD's genitals and her "bum". Whereas in response to the IO's question relating to her genitals (lines 913 - 919), the WLD placed it inside the box, when asked about it in relation to her "bum", after taking time to consider his question during a 3 second pause, she produced an answer that the IO oriented to as "don't remember". The IO oriented to the two different answers as her having understood the physical characteristics of the tissue box and their representations. She did not simply repeat the same answer the second time, having replied "inside" during the first. As Jewitt et al (2016: 12) argue, understanding what an object as a sign represents, is dependent on the manner in which those objects are oriented to by the interactants themselves, "in-situ in dynamic face to face interactions". All participants oriented to the tissue box in the manner designed by the RI and the IO oriented to both episodes as being true representations of the WLD's interpretation of those allegations⁴⁹.

5.5 Critical Summary

This analysis has answered the second RQ relating to the manner in which aidmediated actions assisted in eliciting information. In pre-request sequences, aids established common ground, and together with specific embodied actions such as pointing to and placing objects in a recipient's domain of scrutiny, as well as physically removing them, aids collaboratively and mutually worked towards preparing a WLD for an upcoming request for information.

Furthermore, although Levinson (1983) asserts that pre-request sequences often result in overt requests becoming irrelevant because they implicitly prepare the recipient for the upcoming request, that observation was not observed in this analysis. All aided pre-request sequences did prepare the recipient for an upcoming request however they were all followed by an overt explicit requestresponse sequence. Whereas a neurotypical individual uses progressively incremental talk in pre-request sequences to infer what an upcoming request is likely to be, WLDs in this analysis did not and all needed requests to be unambiguously 'spelled out' to them.

⁴⁹ The RI would necessarily have assessed the WLD's understanding pre-interview, which would have contained an assessment of the WLD's communication skills however those notes were not disclosed to the researcher.

An examination of aids as tools to answer option posing questions was presented in this chapter, demonstrating the manner in which they could be used in a nonleading way with WLDs lacking the spoken vocabulary to uniquely identify for example, intimate body parts. Although current advice advocates minimising the use of closed questions (Milne and Bull 2001, 2006; Ministry of Justice 2011), here, by concretising otherwise inaccessible linguistic concepts using a more accessible format such as pictures, the analysis demonstrated how LD-specific difficulties with speaking were overcome. Information presented visually tapped their relatively stronger visual processing skills (Cherry et al 2002; Dulaney and Ellis 1991) which resulted in detailed, specific and particularised information, once again enhancing quality of evidence.

Importantly, this analysis has demonstrated a unique and atypical way in which instructions can and were embedded in aided interactions to elicit investigation relevant information. Issued in this manner, they reduced the complexity, but retained the functionality of open questions, thereby eliciting richer information. In contrast with typical instruction giving (Mondada 2014a, c), in these data, instructions to elicit investigation relevant information were directed to an instructee (WLD) who knew more about an allegation than a less knowledgeable instructor (RI or IO).

The directly worded nature of instructions, together with the urgency of delivery, although not related to risk of physical impact as in DeStefani and Gazin's (2014) research, minimised the risk of forgetting by focussing a WLD's attention to the task on hand. Since WLDs typically experience difficulties processing aurally presented information and verbalising complex, multifaceted information (Belva et al 2012), this unique technique of aided instruction giving (rather than asking questions to seek information) assisted them in using their relatively superior visual processing skills to their advantage, enabling them to show what happened rather than tell.

This analysis has particularised aid use that is currently absent in interviewing guidance (Ministry of Justice 2011) and legislation (UK Parliament 1999) despite communication aids being a Special Measure that can be applied in relation to vulnerable witnesses. Without aids recruited to make talk relevant, attempts to

establish common ground in the traditional manner (via speech) would likely have been unattainable, resulting in a paucity of evidence as was evidenced in the representative examples presented in this chapter, and others throughout these data.

The next chapter analyses how participants negotiate their production roles in eliciting information and focuses on the strengths of aids in improving quality in aided RI-mediated interviews.

6 PARTICIPANTS' PRODUCTION ROLES AND OUTCOMES OF AID USE IN CO-PRODUCING INFORMATION

The second analytical chapter explicated the manner in which aids were used to establish common ground in pre-request sequences through the *broader* embodied actions of retrieving, placing, positioning, removing, and more *precise* embodied actions of pointing, cutting and tapping, leading up to a requirement for an overt request at the end of the aided episode. It also presented an examination of how aids were recruited to answer option-posing questions and as substitutes for open questions in instruction-giving.

This chapter advances that analysis by examining how the three interview participants oriented to and negotiated their production roles in aided episodes of repair and PI in accomplishing the prime aim of co-producing investigation relevant information. Since this thesis is specifically interested in aided interactions facilitated by RIs⁵⁰, production roles are examined in relation to the other participants' interactions with RIs. Section (6.1) examines the interplay between production roles of the RI and WLD and section (6.2) explicates the interplay between productions. Next, section (6.4) establishes the differences between the language brokering role of an RI and a role that it is often confused with namely interpreter. Following that, the strengths and weaknesses of aids are analysed in section (6.5). Section (6.6) presents results of the Police and RI survey and section (6.7) presents an examination of aids in relation to quality. Finally, section (6.8) offers a critical evaluation of the RQ answered in this chapter, which is:

In what manner do participants negotiate their production roles with the aim of eliciting information and what are the outcomes of using aids in this process?

The first part of this dual focused sub-RQ is examined first, starting with the role RIs accomplished in their interactions with WLDs.

⁵⁰ In ordinary (non RI-mediated) interviews, IO-witness interactions would typically only involve speech and hence outside the remit of this thesis.

6.1 Production roles: Registered Intermediary and WLD

In the production of speech only communication, participants' production roles as animator, author and principal are typically clearly identifiable as such (Goffman 1981). When communication aids were proposed and managed by Rls, a new previously undescribed production role emerged, within their interactions with WLDs, which was collaboratively accomplished, through interlinking turns of aided talk, actively shaped and negotiated over time by the two participants. Rls and WLDs displayed a symbiotic relationship, where the extent of each other's interaction depended on the interactional and allegation-specific needs of the moment, and the linguistic requirements of the WLD. Apart from meeting each other at the pre-interview assessment, a WLD and an RI are relative strangers and this symbiotic relationship was negotiated, established and maintained through sequences of aided talk.

This unique role was demonstrated repeatedly throughout the data however excerpt 6.1 below which is a representative example, has been taken from an excerpt of PI in an allegation of rape and robbery. Prior to this excerpt but in the same interview (Appendix 7, Interview 1, lines 1097-1163), all participants were seated around a table and the WLD had verbally disclosed that the allegation involved a bus stop (line 1106), and a man, (line 1108), her house, the suspect and money (line 1118) and beer and cigarettes (lines 1120, 1123). At that point in the interview the sequence of events and the manner in which these people, places and things were related to each other were ambiguous.

Later in the same interview the WLD also disclosed verbally, that she had met the suspect at the bus stop (line 1140), that the suspect had asked for her money (lines 1150-1152), that her house was involved as a result (line 1154) that she had walked to her house to get some money (line 1163), and that they had gone to a (news) paper shop to get beer (line 1201). Although those events were what the WLD had orally produced using single words and 2-word utterances, a large portion of the chronology was elicited via the IO repeating his interpretation of her talk. Although her words were intelligible, his institutional goal was oriented to confirming *from her*, the correct chronological order in which the events had unfolded, so that her entire evidence became understandable.

Although the WLD was able to name these people, places and things verbally, coherently expressing the order in which events occurred appeared to be linguistically and cognitively taxing, as has been documented elsewhere (Belva et al 2012, Cascella 2005; Prosser and Bromley 2012; Shepherd et al 1999). In order to reduce the linguistic load, the RI had created in-the-moment line drawings (Appendix 7, interview 1 bus stop: 1127-1133, suspect 1142-1144, WLD's house: 1168-1175) of those WLD-initiated key events. However In order to avoid bias and refrain from leading the WLD, those line drawings were created only after the WLD had previously introduced them in her talk. The WLD did not passively accept their presence, but she actively engaged in the embodied actions of physically placing those line drawings (post-it notes) in the order the first three events had unfolded (Appendix 7, interview 1: bus stop 1138, met suspect 1146, back to own house 1177). The WLD had allegedly gone to a newspaper shop from her house and excerpt 6.1 below, starts at the point where the RI and WLD had broken off from the main interview in a side sequence to allow the RI and WLD to animate the visual representation of a newspaper shop, in order to continue co-producing evidence in a similar manner.

However the representational line drawing of a newspaper shop drawn by the RI was based on *her* understanding of what a newspaper shop should look like, and therefore the RI oriented to the need to first and foremost ascertain that the iconic line drawing mirrored the WLD's conceptual representation of the same. Interactionally she first focussed on aligning her visually represented animation with the WLD's concept of a newspaper shop and strove to seek this confirmation (line 1234), "is that ok? Where you get . bu:::y newspapers".

Although the WLD accepted the RI's first attempt at animation as being partly representative, she then also suggested additional amendments to be added, "paper" (line 1235), "fag" (line 1236) and "beer" (line 1238), thereby shaping the RI's initial animation to become more aligned with her own conceptual representation of a newspaper shop. Although these spoken amendments were submitted by the WLD, they were animated on paper by the RI, based on her personal understanding of a paper, a 'fag' (cigarette) and beer. Once those additional animations were completed and checked by the WLD (line 1240), she

then advanced that personalisation of the line drawing even further, "one more beer" (line 1241), thereby ensuring that the alignment between the RI-produced animation was in synchrony with the WLD's own unique understanding. Once clarification of the WLD's third request for personalisation was completed (line 1247), and new amendments to the animation endorsed and agreed (line 1248), the RI and WLD re-joined the main interview. The jointly agreed co-animation was then used to progress the interview (line 1250).

Excerpt 6.1 RI and WLD: paper shop

1232.	WLD wld	yeh paper shop *left index finger points towards window of room*
1233.	IO ri ^a	there we go ,,,,,,,,,,,,,,,, \perp stops drawing \perp
1234.	RI ri ^a	is that ok? Where you get . bu:::y newspapers $\perp RI$ shows WLD line drawing \perp
1235.	WLD wld	yeh . paper *looks at picture drawn by RI *
1236.	WLD wld	fag fag *finger touches lips and moves out again*
1237.	RI	fags
1238.	WLD ri ^a	beer \perp draws on post-it \perp >
1239.	ri ^a wld	> \perp ,,,,,,,,,,,,,,,, \perp *finger touches lips and moves out again*
1240.	RI ri ^a wld ^a	how about that? ⊥shows post-it line drawing to WLD⊥ *Gazes at line drawing*
1241.	WLD wld	yeh fag. one more beer *shows right index finger pointing outwards*
1242.	RI ri ^₄	Hehe. one more beer $\bot,,,,,,starts$ drawing on post-it \bot

1243.	RI	two beers. WLD. bottles or cans?
1244.	WLD	cans. [beer too dear hehe
1245.	RI ri	[cans > \perp draws on post-it \perp \perp >
1246.	IO wld	too diyuh *touches all fingers of upward facing right hand repeatedly*
1247.	RI ri ^a ri	Is that . ok for a can? >,,,,,,,,⊥stops drawing # representation of a 2 nd beer can #
1248.	WLD ri ^A wld ^A	yeh \bot holds line drawing out for WLD to see⊥⊥> *gazes at line drawing*
1249.	RI ri	where does that go WLD \perp Gives line drawing to WLD \perp
1250.	WLD wld ^A	hi:yuh places drawing in 4 th position on table

By determining the order in which the post-it line drawings were placed, the WLD authored that message in line 1250 of excerpt 6.1 above, and previously in lines 1138, 1146, 1177 (Appendix 7 Transcript 1), as it was she who "selected the sentiments" (Goffman 1981: 144). It was she who identified the locations and events to be animated, as well as composing the order in which they were sequentially related to each other by placing the line drawings in the positions she believed were correct. In this manner, she communicated that the newspaper shop was the fourth event in her chronology, the first three being waiting at a *bus stop*, meeting the *suspect* at that location and then going to her *house*.

The RI played no role in authoring the events and their chronology: placing the line drawings in their sequential position was the sole responsibility of the WLD as author. Additionally, intelligibility does not necessarily relate to an utterance being understandable but relates to how a turn is perceived in relation to prior talk (Bloch and Wilkinson 2004). By sequentially ordering her co-animations, the

WLD was enabled to make her self-authored communications understandable to the IO.

Furthermore, the WLD proactively participated in animating the drawing, being "active in the role of 'utterance' production" (Goffman 1981: 144), by requesting and endorsing amendments to the visually presented animation, although the actual line drawing itself was not the work of the WLD alone. It was hand crafted by the RI, using *her* own previous knowledge of what a newspaper shop, beer and cigarettes should look like, shaping the line drawing in a manner that *she* believed would match the WLD's sentiments (and only after the WLD had first introduced them).

Additionally, the RI had selected drawing as a modality to be used in eliciting this information rather than a different means of animation. This differs from typical speech-only communication where the speaker of an utterance usually also selects how animation occurs. The RI had therefore played an active role in architecting that 'utterance' as well. Although one participant selected and created the 'utterance' to be animated (RI), another amended and completed the task of 'utterance' animation (WLD) and therefore although a label such as coanimator is meaningful, due to the equally important but uniquely differing nature of their contributions to the animation process, it is argued to be inadequate and overly simplistic. One was dependent on the other. Neither could exist without the other, but both were uniquely responsible for actively animating the message. It must be reiterated that once the animation was completed, it was the WLD alone who authored the message by endorsing the animated 'utterances' and selecting the order in which they related to each other chronologically. Although line drawings were used instead of speech, the semantic and pragmatic aspects of her message were retained and solely constructed by the WLD.

In atypical communication elsewhere (Bloch and Wilkinson 2011), typically communicating speakers did not assume responsibility for creating the 'utterances' used by their atypically communicating partners in order to animate their messages. In contrast here, and in examples of bricolage elsewhere (chapter 5), without the RI selecting and creating i.e. becoming the *architect* of that aid

(that the WLD had first introduced), the WLD's access to the tools to animate her message would have been impossible, thus generating a symbiotic relation between the two. In identifying speaker roles, Goffman's framework (chapter 2), does not encapsulate this type of aided interaction, therefore an addition to Goffman's framework is suggested, specifically in the context of aided interactions, namely the RI's role of *architect*⁵¹.

The next section is concerned with participants' production roles in interactions between RIs and IOs.

6.2 Production roles: Registered Intermediary and interviewing officer

As demonstrated above, Rls co-produced a WLD's 'utterance' by architecting (i.e. selecting the animation modality and shaping the aid's affordances) its production and usually maintained that role until completion of information transfer. IOs on the other hand, who primarily used speech to communicate their messages, frequently authored and animated their own questions, such as "tell me what has happened to you while you're living in the Winchester area" (Appendix 7, line 3, interview 6), "now (0.5) tell me tell me . what you told <jack> about dave" (line 713, interview 1) or "do you know when this was WLD?" (line 48, interview 4), and the principal in those questions typically related to the legal institution, its deontic rights, and responsibilities to which IOs were affiliated. At times IOs relied on Rls to animate their utterances, deferring to Rls' greater epistemic responsibilities and knowledge of the WLD and atypical communication, so that their spoken and aided renditions aligned with WLDs' abilities to access their message e.g. "inside" (Appendix 7, interview 1, line 889).

In their institutional social role of remaining neutral, RIs did not initiate any new topics but animated the sentiments authored by IOs (such as creating a line drawing of a concept proposed by an IO), thus aligning with the IO on those occasions. Considering communication from the point of view of the message only and not of the speaker, when reflecting on the IO's self-conceived (but RI

⁵¹ The Collins English Dictionary (2020) definition of architect relating to "an idea, event, or institution, is the person who invented it or made it happen" and is apt in these data.

animated) message specifically, the "party to whose position, stand, and belief the words attest" (Goffman 1981) i.e. the principal, related to the IO's legal institution. Although the RI's institutional and social role is a neutral one, in assisting the IO shape his or her self-authored communication, the message that was produced as a result, interactionally related to the IO's principal at that particular moment in the interaction order. In their role of language broker, RIs constantly switched alignment between WLDs (section 6.1) and IOs. When they were aligned with IOs and WLDs in assisting them communicate their respective messages, those messages thus communicated, although shaped by an RI, retained the IO or the WLD as principal, as the case may be.

Excerpts 6.2, 6.3 and 6.4 illustrate this in-episode, frequently transitioning and circumstantially-responsive alignment. All these excerpts related to an IO exploring the WLD's allegation of theft that was referred to in a previous topic, but which was never discussed in detail at that time. Excerpt 6.2 demonstrates the RI's initial alignment with the WLD, in response to the IO's query to tell him about the money (line 1105). Although the WLD responded verbally "uh bus sop" (line 1106), she also advanced the spoken information she had given using idiosyncratic gesture (line 1108 and 1118), which would be unfamiliar to lay individuals such as the IO, and unseen ratified over-hearers such as the jury, counsel and the Judge. Orienting to this realisation, necessitated the RI to be brokered in (lines 1109, 1111, 1113) and to align with WLD (who was the principal and author of this message) by decoding her idiosyncratic gesture to verbally say, "a man", "forgot man's name", and "big man" respectively. Although it could be argued that the RI was simply guessing, this was not the case, as after each of the RI's clarifications, the WLD either progressed her talk indicating understanding and acceptance (lines 1110, 1114) or explicitly confirmed agreement by saying, "yeh" (line 1112). The WLD was the principal in those RI co-animated messages.

Excerpt 6.2 Changing alignment: WLD

Participant RI aligned with

- 1105. IO so tell me about so tell me about the money
- 1106. WLD uh bus sop

1	107.	10	at	bus	stop)
---	------	----	----	-----	------	---

WLD uh man

- 1108. wld^A *points to area over upper lip with both index fingers and moves them downwards over border of upper lip, away from each other*
- 1109. RI a man
- 1110. WLD fo:guh: man's name
- 1111. RI forgot man's name
 - WLD yeh bi man yeh
- 1112. wld^A * flat right hand placed and maintained above own head parallel to floor*
- 1113. RI bi**G** man
- WLD no name. 1114.
- wld *Shakes head*
- 1115. IO Don't know his name
- WLD no 1116.
- wld *Shakes head*
- 1117. IO oke
 - WLD man (XXX) my house and dave and money
- 1118. wld^A * finger tips of right hand touch each other and move rapidly against each other*

Excerpt 6.3 extracted from the same interview, a few turns later but on the same topic of 'money', demonstrated the RI switching alignment to the IO. The IO indicated his intention to explore the topic of the bus stop by proposing that a drawing of it should be used (line 1125), his selection of this type of aid and its management had been previously modelled by the RI earlier in the interview where previous use of line drawings had elicited new information.

In physically picking up the tools to shape the aid (line 1126) thus signalling transition to a new activity (Robinson and Stivers 2001), the RI also demonstrated her alignment with the IO and his goal. She continued to demonstrate her

WLD

WLD

WLD

alignment with the IO during aid creation and the IO oriented to her alignment with him by engaging with the WLD in a speech-only side sequence, allowing the RI the time to complete that aid-shaping process (lines 1127-1133). Although the aid (line drawing) was animated by the RI, it was selected by the IO with whom she was demonstrating alignment. The message thus jointly animated was authored by the IO, and retained the IO's institution as its principal.

Excerpt 6.3: Changing alignment: IO			Participant RI aligned with
1125.	10	so let's draw . let's draw a picture of the bus stop.	
1126.	WLD wld RI	bus:awp *nods* ⊥picks up post-it and pen⊥	ю
1127.	IO ri ^a	And whe ::re is the bus stop? \perp starts drawing bus stop on 1 st post-it \perp >	10
1128.	WLD wld	my ouse *points with right hand in left direction*	10
1129.	10	your house	10
1130.	WLD	yeh	Ю
1131.	Ю	I know where that is cause it's ri::ght opposite your house isn't it.	Ю
1132.	WLD wld ri ^A	my house *Points with left hand in left direction* >	Ю
1133.	IO ri ^A	the biggest bus stop I've ever seen \perp ,,,,,,,,,,,,,,,,,,,,,,, \perp RI stops drawing	10

Having completed this line drawing on the IO's behalf (thus demonstrating alignment with him), in excerpt 6.4 in her role of architect, the RI's attention then turned to personalisation of it in keeping with the WLD's conceptualisation

of a bus stop, in order to create her animation in a manner that was as aligned to the WLD's understanding as possible (lines 1134-1136). As the WLD would be the participant involved in manipulating the aid, it was essential that the animation's iconic representation was most aligned to her perception of that concept.

The RI then switched alignment back to the IO once more in line 1142, in response to his indirect instruction, "ok. so if we draw dave", indicating progression on to the topic of the suspect, by creating a new post-it line drawing in his task of identifying the relationship between the suspect and the bus stop.

Excerpt 6.4 Changing alignment: WLD and IO				
1134.	RI ri	How about that WLD does that look like a bus stop? \perp hands post it to WLD \perp	WLD	
1135.	WLD	yes		
1136.	RI	Is that ok?	WLD	
1137.	WLD	yeh hehe		
1138.	ri	(0.5) $\bot Clears$ area and places line drawing on the table in front of WLD $\!$		
1139.	10	So who did you meet at the bus stop =		
1140.	WLD	= dave		
1141.	10	dave Ok so if we dra::w . dave		
1142.	ri ^A wld	 (2) ⊥ draws 2nd line drawing # Representation of suspect/dave# * gazes at RI drawing*> 	10	
1143.	RI	(0.5) this is \uparrow duh for dave		
1144.	RI wld	di:: for dave? *,,,,,,,,*	WLD	
1145.	WLD ri	yeh \perp gives post-it line drawing to WLD \perp	WLD	

- WLD uh bus:sop he:re
- 1146. wld^A *places the 2nd suspect line drawing positioned after 1st 'bus stop' drawing *
- 1147. IO So at the bus stop with dave.

Once again the RI switched alignment to the WLD (who was the principal of her animation) in the process of aid personalisation (line 1144) by checking that the 'D' she had written on the line drawing suitably symbolised the suspect's name, "di:: for dave?" Although it is doubtful that the letter 'D' would be meaningful to the WLD⁵², the process of watching the RI shape the aid, talk about its creation (lines 1144-1146) and repetition of the topic while both continued to gaze at the post-it, established common ground and a focus for topic talk (cf Chapter 5).

In maintaining her neutral institutional social role, the RI's interactional alignment transitioned back and forth between the IO and the WLD, allowing the principal in their messages to be the policing institution and WLD respectively, facilitating communication between someone with "low linguistic expertise" (Bolden 2012: 98) and a neurotypical IO. At no time during these request-response sequences between the IO and the WLD, did the RI assert her own position or belief, except when she exerted her epistemic responsibilities in proposing the use of a specific aid, or in personalising them to be WLD-specific, in asides to the IO and WLD respectively. In any case, proposal of a specific aid related to facilitating the *structure* of talk and not to the *content* of that talk. In other words, the IO and the WLD were concerned with the content of new information while the RI's focus related to the structure of that content.

Additionally, this role switching was done seamlessly, without interruption and without prior notice to others. without all this work in interaction, the order and content of this new information as elicited above (i.e. that there was a man at the bus stop, that he was a big man, and that the suspect met the WLD at the bus stop) would not have been elicited and far less evidence would have been

⁵² This excerpt highlighted the principle that "one size does not fit all", as line drawings were recruited in these excerpts to represent the WLD and the suspect but wooden mannequins were recruited previously in episodes relating to the WLD and suspect. This point is explicated in section 7.3.2

obtained. Alignment switching by RIs was fluid and not pre-determined; it was defined by the outcome of each successive adjacency pair within an overarching episode of repair or PI. The above analysis examined one such section from interview 1 however all other topics were treated in the same manner in this and other interviews. The ultimate institutional goal of eliciting investigation relevant new information (and thereby quality of evidence) remained the prime focus of the interviews and was achieved by the presence of the RI who selected, created, and managed aid use.

At times, this language brokering role met with interactional problems and on those occasions when roles were violated, participants worked towards reestablishing those roles.

6.3 Role violations

Although for the most part, interactionally accomplished negotiation between IOs' and RIs' deontic and epistemic rights and responsibilities was achieved smoothly, there were some instances of disalignment and those role violations typically occurred in the announcement-proposal phase of an episode (Fig 4.9, page 148). This occurred in those instances when IOs commenced on an episode of PI, as indicated by spoken references to aids, but in doing so omitted announcing the topic of discussion and instead extended their deontic right to include aid selection as well, as explicated below. When IOs autonomously announced an aid they considered suitable to their institutional goal (instead of leaving that epistemic responsibility to the RI), those altered interactional deontic and epistemic asymmetries were made relevant through talk and subsequently needed to be negotiated incrementally and sequentially on a turn by turn basis by the IO and RI, so that the overarching goal of evidence elicitation was maintained.

In those instances, both participants shared the interactional goal of progressing the episode as well as the institutional goal of eliciting new information. However an additional interactional responsibility that the RI was then required to undertake, involved predicting the IO's (unstated) institutional goal, in order to make an epistemic contribution. In other words, when an IO unexpectedly encroached on the epistemic responsibilities of an RI (which was to select an aid), the participants worked towards re-establishing those deontic and epistemic symmetries in order to interactionally progress the episode of PI in order to elicit investigation relevant information. That negotiated interactional work was accomplished through talk as well as embodied actions, as explicated in the following excerpt.

Excerpt 6.5 follows on from excerpt 5.4 in chapter 5 (page 174) where a male WLD alleged sexual assault by a male acquaintance and involved the WLD using a cut-out of a person to confirm his understanding of male body parts. The IO's current institutional goal related to establishing the WLD's understanding and use of the word "bum", a term the WLD had used in the interview previously. All participants were seated around a table on which previously introduced aids had been placed, manipulated, and used.

The IO announced that a new aid was to be used which she signalled in line 538 by using the word "another", as in, "Now then I think RI has got another picture". While announcing a new topic lies within the IO's deontic responsibility, announcing the type of aid that was to be used, encroached on the RI's epistemic responsibility. The utterance concerning the aid was a bald announcement without any of the symmetrically accessible hallmarks of a proposal seen in excerpt 5.4 and it was oriented to as being atypical by the RI in her response to it. Although the RI's query relating to which picture the IO was referring (line 539) to could have been a genuine request for information, the IO oriented to the RI's 0.5 second pause and 'surprised' intonation as being atypical in some way and resulted in the IO offering an explanation but also appending an apology in her response in line 540.

Focussed on her institutional goal, the IO then began to proceed with her own objective (lines 545 and 547) however she was cut off by the RI who treated her own epistemic status as being incomplete and therefore began to re-establish her epistemic responsibility by engaging in embodied physical actions of aid shaping (lines 546-548) in order for it to be oriented to as fit for purpose. Further emphasising her epistemic responsibility, she took the floor, addressing the WLD

directly with talk that although aligned with the IO's overall institutional goal, was momentarily disjunctive with her prior talk, "that's his face" (line 548).

To re-establish her deontic right of asking institutionally relevant questions, the IO posed, "So can you show me, on that picture what you mean by bum" (line 550). Now fully understanding the IO's new topic and displaying her own epistemic responsibility of ensuring the situational appropriateness of a selected aid, the RI took the floor to make explicit the two planes of the cut-out i.e. the front and back (lines 551 and 552). This intervention enabled the WLD to point to the body part on the cut-out (line 555), thus answering the IO's question. Furthermore, although the aid itself afforded a front and back view of a person, it was the RI's interactional work in preparing the aid (lines 546, 548, 551 and 552) that enabled the WLD to provide his answer. Talk on its own would have been unable to progress the episode of PI and the aids enabled him to identify a body part without pointing to himself, as per interviewing guidance (Ministry of Justice 2011: 124).

Excerpt 6.5		Role violation: Absence of an announcement
538.	IO wld ^a	Now then I think RI has got another picture. > stops looking at paper,,,,,,,,,,,,,,,,,,,,,,,,,,,,*
539.	RI	(0.5) 个which 个one? (surprised intonation)
540.	Ю	have you got the back one sorry RI
541.	RI	yes
542.	ri ^A	\perp puts hand in bag. \perp
543.	RI	[this one?
544.	ri ^A io	[\perp Brings cut-out out of bag \perp *nods*
545.	10	now this one here is just=
	ri ^A	\perp holds cut-out in front of WLD with left hand \perp
546.	ri ^A	= \perp takes pen from WLD; starts to mark on face of cut-out \perp \perp >
547.	10	Now this one here is a picture again.

	wld ^A	*looks at RI making marks on 'face' of cut-out*>
548.	RI ri ^a wld ^a	that's his face. >⊥,,,,,,,,,stops making marks on cut-out⊥ *gazes at cut-out*>
549.	10	draw a nice face.
550.	ю	So can you show me, on that picture what you mean by bum
551.	RI	[Front and that's the back
552.	ri ^a wld ^a	[\perp turns cut-out back and forth to show both sides. \perp
553.	wld ^A	*leans across and reaches out to hold cut-out*>
554.	ri ^a io ^a	\perp gazes at what WLD is doing \perp > +gazes at what WLD is doing+ >
555.	wld ^A	*turns it around and points to 'bottom' area on cut-out*
556.	WLD	(2) the bum's there.

What this section of the analysis adds to police investigative interviewing literature is the way in which IOs and RIs negotiated their deontic and epistemic rights and responsibilities in eliciting information, even when role violations occurred. They were interactionally established, managed and negotiated sequentially through unfolding turns of talk and embodied action that were made relevant in the context of the accompanying aid.

The above analysis has argued that the language brokering role adopted by RIs is distinct. The function of an RI is different from an interpreter, with which it can be confused and which is explicated next. Although interpreters also facilitate message transfer from a linguistically less able communicator (of the target language) to others (Hlavac 2014) RIs' linguistic and interactional responsibilities differed from an interpreting role in several ways as will now be discussed.

6.4 RI role and interpreter's role: A critical evaluation

6.4.1 Modality and repair

Typically speech interpreters' (or translators') renditions of spoken (or written) utterances retain the same modality of language output. A spoken German utterance will be interpreted by a German interpreter into another spoken language (within the same oral-aural modality). This differs from the practices RIs are engaged in. As analysed here, when spoken language failed after simplifications and repetitions, RIs proposed an alternate modality i.e. the visuo-spatial modality to be used, rather than persisting with the auditory-verbal modality.

In these data RIs frequently aligned as a team with WLDs and on other occasions with IOs, when they engaged in Jefferson's (1972) side sequences or Komter's (2005) asides to discuss interactionally and institutionally relevant points. Although talk in interpreter-mediated interactions also involves asides, their talk in those situations typically relates to repair of misunderstandings (Komter 2005; Wadensjö 1998). In contrast, when RIs conducted side sequences with WLDs, it was typically in their production role of architect i.e. in order to check that the aid they had selected and were co-animating was aligned with WLDs' communicative intentions (such as in excerpt 6.1), to enable WLDs themselves to repair breakdowns. When they engaged in side sequences with IOs in their language brokering role, it was overwhelmingly to discuss a particular aid, access to it or how to progress its use (a good example of which is except 5.8, page 182). In other words, asides in RI-mediated interaction related to enabling others to repair their own breakdowns whereas asides in interpreter-mediated talk typically involves interpreters repairing breakdowns.

6.4.2 Interpreter in role of Principal

In professional interpreting, even though interpreters are required to use the word 'I' during the course of interpreting, as they are acting as a voice-over, the role of principal is still assigned to their client and not themselves (Association of Police and Court Interpreters 2010). Although the role of their client as principal, is assumed and taken for granted, sometimes interpreters are required to clarify

this point more explicitly (2010: 55) by explaining to listeners that the sentiments belong to their client. Confusion on this point did not occur in these data as RIs rarely reported on WLDs' communications: WLDs were facilitated to communicate new information themselves and therefore confusion on who held the role of principal did not arise.

On a few occasions, in keeping with their legal role (Ministry of Justice 2015), RIs repeated WLDs' articulations of self-generated words, clarifying them for IOs by using conventional speech, or asked WLDs to repeat specific words themselves for IOs' benefit such as in interview 1, where the RI addressed the IO directly, "did you hear what WLD said?" (Appendix 7, interview 1, line 1099). When the IO responded in the negative, the RI waited for the WLD to take the floor herself who repeated, "moyi::". For this reason, although Other-initiated Other-repair is noted in language brokering as an interpreter (Bolden 2012) and in pedagogical settings (Clarke et al 2017, McHoul 1990), it was typically not observed in these aided RI-mediated data. As explicated in chapter 4, although RIs initiated repair in WLD-generated misunderstandings, repair completion was typically accomplished by WLDs themselves (Section 4.4), resulting in a preference for Other-initiated Self-repair.

Although the above 2 points (sections 6.4.1 and 6.4.2) highlight key differences between RI intervention and the role of an interpreter, the most crucial difference was emphasised in episodes of PI, as is explicated next.

6.4.3 Rls and episodes of Pl

Chapter 1 introduced the role of pre-interview assessment and planning that typically takes place between an IO and an RI before the investigative interview takes place. At times reference was made to pre-interview talk that did not warrant further in-interview discussion such as "Now then RI has got another picture" (line 862, interview 2), which was uttered by an IO to a WLD as a means of suggesting an upcoming aided interaction, while referencing pre-interview planning. That chosen format of utterance and absence of further explanatory talk demonstrated the presence of common ground between IOs and RIs and in this case, it implied that the RI having another picture was a known fact.

Another example is "where's the [sentence strip]?" (line 287, Appendix 7, interview 1), which was said by an IO to a WLD to remind her to use a previously introduced aid in the current interaction.

Finally, "when you had your assessment. we had a sketch pad and that was really good" (lines 90 and 91, interview 5), uttered by an IO to a WLD, reminded him of an aid previously used, thereby preparing him for an imminent aided interaction.

However talk referencing pre-interview planning is not a characteristic feature of same language interview interpreting, where typically chunks of to-beinterpreted talk are uttered, after which an interpreter produces their target unadulterated spoken text in real time (Russell 2002). Planning in RI-mediated interaction is essential because each WLD's atypical communication needs are unique, requiring the recruitment of WLD-specific and situation-specific aided systems, which is dissimilar to interpreted speech, where typically, idiosyncratic variations are irrelevant and do not need accommodating. The forward-thinking nature of those PIs, where future probable troubles are anticipated and steps are taken to prevent them, is unique to this type of language brokering. Additionally, in some situations an RI as well as an interpreter are involved in the same interview (Ministry of Justice 2011) demonstrating further the different roles that they hold.

The next section critically analyses the strengths and potential weaknesses of aids, including the types of investigation relevant information they can yield.

6.5 Strengths and weaknesses of aids

6.5.1 Types of information elicited

Aids assisted in areas of interaction that WLDs typically find challenging. They increased the specificity of repair initiators after a breakdown, thereby facilitating WLDs to pay attention, by establishing and maintaining common ground. This facilitated WLDs to answer key investigation relevant questions (section 5.1). Additionally aids were used as tools to answer option posing questions (section 5.2) and when IOs and RIs used instructions, they were used as physically manoeuvrable tools, providing complex abstract answers such as

sequencing and other time-related information (section 5.3), which are known to be extremely difficult for WLDs to process and express coherently (Prosser and Bromley 2012; Shepherd and Mortimer 1996).

IOs made requests for information based on their points to prove the case. Aids in these data contributed to eliciting resulting responses related to (1) biographical n=7 (2) geographical n=8 (3) material n=16 (4) positional information n=16 and (5) temporal information n=8, as well as (6) assessments n=11 and (7) multipart happenings n=47. The frequency of occurrence relating to each type of information elicited here has been provided to highlight the range of information elicited and not to make any quantitative interpretations regarding their occurrence. See Appendix 6C for a spreadsheet of the different types of information elicited in relation to all aided episodes.

Aids thereby not only increased the amount of information elicitable, but also the variety of information that could be deduced. Their strength lay in the quantity as well as breath of information (evidence) they assisted in producing.

6.5.2 Iconic features versus opportunistic physical features of common objects

Many of the examples in the data have demonstrated the manner in which the iconic properties of aids have been exploited in an intentional and prearranged manner such as when wooden mannequins represented a suspect and a WLD (excerpts 4.2, 4.5 and 5.2), miniature furniture represented a real bed on which an allegation occurred (Section 6.5.5), coloured pictures of environments (excerpt 4.1) and line drawings of a person on which a WLD was asked to mark out the relevant body part (excerpt 4.9). Such aids were clearly brought to the interview with their intended purposes pre-considered.

However, there were other instances when RIs, in examples of "bricolage" (Erickson 2004: 165), made do with whatever resources were at hand and recruited everyday objects to serve the interactional requirements of the moment. Excerpt 5.8 (chapter 5) was one such example where an empty tissue box with an opening (from which tissues are typically removed) and a green wooden brick were conscripted in based on their physical affordances.

Another example of opportunistic bricolage relates to excerpt 6.6 below. The inside of an empty pencil case and its cover were used to elicit the WLD's understanding of where the suspect's penis was placed during the allegation. The WLD had previously identified on a line drawing, the location of a penis on a man's body (Appendix 7, transcript 7, line 1053), that he had touched her vagina (line 1298) and she had pointed out on a separate line drawing, the location of a woman's vagina (line 1309). The RI recruited an empty pencil case with a moveable sliding lid, to initially demonstrate both concepts of outside (lines 1397-1399) and inside (line 1400) in relation to the pencil box. Additionally, coinciding with the design of her question in that manner, the RI stressed the key words she wanted the WLD to focus on, further safeguarding against the possibility of an inconsistent answer.

Excerpt 6.6

1384.	RI	you know you said
	ri	\perp puts papers on table \perp
1385.	RI	um
	ri ^A	$\perp \text{points}$ to area in between legs and torso on line drawing body \perp
1386.	RI	you showed us on this picture didn't you.
1387.	WLD	yeh
1388.	RI	where ivan put his penis didn't you
1389.	WLD	yeh jaina
1390.	RI	in. in your vagina
1391.	WLD	can't do that
1392.	RI	no:::w
1393.	ri	\perp reaches for empty pencil case from nearby shelf \perp
1394.	RI	I have here . just a box ok?
1395.	ri ^A	\perp holds sliding cover of pencil box in her hands \perp

1396.	RI	right.
1397.	RI ri ^A wld ^A	(0.5) and on the box \perp places pencil box lid back \perp \perp > *gazes at box*>
1398.	ri ^A	\perp slides pencil box lid back \perp
1399.	ri ^A	\perp rubs fingers on surface of lid \perp
1400.	RI	and we have [inside
1401.	ri ^A	[\perp touches inside of box with fingers \perp
1402.	WLD	can't do that
1403.	RI	ok
1404.	RI ri ^A	(1) when [ivan [touches area on paper
1405.	RI	put his penis .
1406.	RI	on your vagina
1407.	WLD	yeh
1408.	RI ri ^A	[was it on the out side of your vagina [⊥touches surface of lid⊥
1409.	RI ri ^A	[or in side it [⊥puts fingers inside box⊥
1410.	WLD wld ^A	inside >,,,,,,,,,,,,looks at RI*

The opportunistic features of the box was used to enable the WLD to understand the abstract positional concepts more explicitly. Ensuring the WLD was watching her demonstration of these positional concepts in relation to the pencil box, then allowed the IO and RI to progress the interview to investigation relevant questions that were related to the positions 'inside' and 'outside' (lines 1404-1410).

6.5.3 Provision of concrete contextual information

The overriding strength of aids is their ability to provide additional contextual concrete information to assist with communication of abstract concepts. Concrete words are understood and produced more easily than abstract concepts and their understanding and production are assisted by providing additional contextual information (Schwanenflugel 1991). In all cases in these data however, an aid's position on the *Gradual Shift* abstract to concrete continuum (Park 1997) remained key. When WLDs oriented to words (which are towards the abstract end of the *Gradual Shift* continuum) as being difficult to understand and/or verbalise, they understood IOs' requests for information better when the spoken context was supplemented with visual aids.

An example of an abstract concept being concretised is presented next. This allegation related to a physical assault (i.e. slapping on the WLD's face) by the WLD's boyfriend, after which a neighbour from the flat downstairs entered the scene of the allegation to assist. The WLD had also tried to phone her mother after the slapping incident. The IO's institutional goal consisted of identifying when the neighbour arrived in the context of the slapping incident and phone call. (See Appendix 7, interview 3, lines 612 onwards) and the WLD demonstrated her misunderstanding in lines 644-645. Excerpt 6.7 begins at the point when the IO resorted to using his hands as aids in assisting his understanding of the WLD's account.

He used his right hand to represent the point in time when the WLD rang her mother and his left hand as the point in time when the suspect slapped her. He oriented to the physical space in between his two hands as representing the abstract passage of time between the two events. However common ground was not established and a misalignment was demonstrated between the IO's orientation to his hands as time markers and the WLD's orientation to them and what they represented. This mismatch resulted in a conversation breakdown (lines 680-681). The WLD oriented to the physical features of the IO's hands themselves and treated the physical space in between them as being irrelevant to her understanding of his request for clarification. She was unable to understand that he intended the space in between his hands to represent the passage of time and breakdown persisted.

The IO then returned to a method of repairing breakdown that the RI had successfully used in earlier sections of the same interview which was a timeline (line 684).

Excerpt 6.7:		Concretising abstract 'time'
669.	IO io ^A	this hand . ok . is you ringing mum +own right hand up in front of self +
670.	WLD wld	yeh *nods*
671.	IO io ^A	this hand . ok. is when he slapped you. + own left hand up in front of self+
672.	WLD	yeh
673.	10	in between these hands
674.	WLD	yeh
675.	ю	either before.
676.	ю	in between or either this one.
677.	ю	you got me so far
678.	WLD	yeh
679.	ю	when [did
680.	WLD	[*moves own left hand in slapping shape*
681.	WLD wld ^A	slapped me that one [a phone in he [holds left hand with right hand
682.	10	(0.5)
683.	ю	awright.
	io ^A	*>moves right hand down to own lap,,,,,,,,,,,,,,,,,,,,,*
	io ^A	*>moves left hand down to own lap,,,,,,,,,,,,,,,,,,*

684.	Ю	I'll write it. that'll be better
685.	RI	there's some paper there.
686.	10	yeh
	io	+takes paper from RI's hand +
687.	10	right
	io	+places paper on table, holds pen +
688.	IO	so he is
	io ^A	++draws on paper with pen ++> # representation of 1 st event: slapping #
689.	10	(2) so he's slapped you
	io ^A	++,,,,,,,,,,,,,,,,,,,,+
690.	WLD	yeh
691.	10	ok
692.	10	in the bathroom trying to ring mum
	io ^A	++makes 2 nd mark on paper: ++>
		<pre># representation of 2nd event: bathroom/phoning #</pre>
693.	io ^A	(2)
694.	10	ok -
695.	WLD	- he'd already slapped me
	wld ^a io ^a	*points to area on paper with right hand as 688* >+,,,,,,,,,,,, +
606		
696.	10	yeh
697.	WLD	(1) looks at RI
698.	10	yeh
699.	WLD	I'd started crying
700.	WLD	so I'd I went in to the bathroom
	wld	*places right hand on own chest*
701.	10	yeh
702.	WLD	said I'd ring my mum xxx

	wld ^A	*touches area on paper, as 692*
703.		(3)
704.	10	ok
705.	IO io ^A	man from downstairs. ok +completes 2 nd drawing on paper with pen but keeps pen on paper+ #representation of 3 rd event: man #
706.	10	When did you see . the man from downstairs.
707.	WLD	when he said he's gonna ring the police.
708.	WLD wld ^A io ^A	 (2) he'd already slapped me before the man come *points to same area on timeline as 688* + removes pen from paper,,,,,,,+
709.	IO io ⁴ wld	ok so he'd slapped you +points to area on timeline as 688+ *nods*
710.	10	before the man came up
711.	WLD wld ^A	*nods* *points to area on time line representing 1 st event*

Even though a physical hand is an actual object and on the *Gradual Shift*, would on first glance appear to be closer to the concrete end of the continuum, it lacked iconicity in relation to the abstract concept of time. The WLD did not orient to the hand shape itself as being relevant, nor did she orient to the space between the IO's two hands as being relevant (although that was the IO's initial intent). It was only when the IO introduced a concrete aid in the form of a hand drawn timeline, where the passage of time was represented visually by a physical line and the three important landmark events (i.e. slapping, phoning her mother and man appearing) were marked specifically by iconic previously used and familiar representations, was the WLD able to communicate her account relating to events during that time period.

6.5.4 Feature emphasising embodied actions

Although aids were selected based on their specific affordances, WLDs and IOs did not always orient to those affordances and consequently RIs used embodied actions to increase the relevance of an aid's affordances. For example in excerpt 6.6, the RI touched the inside and outside of the pencil case to specifically draw the WLD's attention to those spatial features of it.

Other feature emphasising embodied actions consisted of circling a specific part on an aid such as in excerpt 6.8 below. In this excerpt, all participants were seated around a table on which the RI placed a timeline. By placing a timeline in their shared o-space (line 53) he directed the WLD's attention to the aid as a whole but then *tapping* a specific point on the timeline (line 58) focussed her attention to a precise date. He then emphasised that particular date even further by *circling* it (line 62), thereby creating a permanent mark on the aid, eliminating any possible ambiguity as to the aid's affordance.

Excerpt 6.8		Circling: Feature-directing embodied actions
52.	RI	should we see if this timeline helps I've done this
53.	ri ^A	\perp places sheet of A4 on the sofa in between them \perp #sheet has drawing of a timeline#
54.	RI	and it shows the last few months
55.	WLD wld ^A	yeh * gazes at paper*>
56.	ri ^A	\perp gazes at paper* >
57.	RI	this one here is what we're talking about and
58.	ri ^A	ot taps on the paper at the end of timeline ot
59.	RI wld ^a ri ^a	that . have we just had your birthday >*,,,,,,,stops looking at paper >⊥,,,,,,stops looking at paper
60.	WLD	yeh?
61.	RI	so that's where w'are now

	ri ^A	\perp moves pen towards timeline> \perp >
62.	ri ^A	\perp circles the end of the timeline \perp
	wld ^₄	* looks at paper*>

Other feature-emphasising embodied actions consisted of cutting out around the shape of a line drawing (excerpt 5.2, page 166), and drawing the shape of a computer generated box requesting a username and password (excerpt 4.8, page 144).

However on a small number of occasions (2 of 115 aided episodes), aids were unsuccessful in facilitating WLDs to produce information, which will be examined next.

6.5.5 Extent of linguistic difficulties

One episode of repair and another of PI did not yield information. The one episode of PI that was unsuccessful related to an IO's institutional goal of what had happened during an alleged rape. The WLD had previously used the phrase, "made sex" (Appendix 7, transcript 7, line 1101) and the IO was interested in exploring the WLD's understanding of this term. Two wooden mannequins were made available to use and had been placed on the table in front of the WLD prior to excerpt 6.9. Additionally, the RI had retrieved a miniature bed from her bag and it was placed on the table next to the mannequins. The institutional goal during this excerpt consisted of obtaining the WLD's understanding of "making sex".

From lines 1201 to 1203 the RI instructed the WLD to use the wooden mannequins to demonstrate what the suspect did i.e. "show us with the wooden figure what did ivan do." The WLD provided detail about other aspects of the allegation in relation to a physical assault, "he punched me with the pole" (line 1205), but in spite of repeated instructions, including retrieving a previously used line drawing of a human body (line 1211) on which the WLD had marked the body part involved in the sexual assault to establish common ground (Enfield 2014), as a context setting device, the WLD did not provide information relating to the sexual assault and said, "I dunno" (line 1220), which the IO and RI oriented to as being unsatisfactory. Although the RI did use "show/showed" in lines 1202, 1211 and

1213, her final instruction in 1219 that immediately preceded the WLD's "I dunno" included the word "how", a word that is linguistically challenging to WLDs.

Excerpt 6.9		Nade sex: 1 st "dunno"
1201.	RI ri ^A	when ivan made sex with you. \perp points to the mannequin \perp
1202.	RI	show us show us with the wooden figure.
1203.	RI	what did ivan do.
1204.	WLD	in the pole.
1205.	WLD	punched me with the pole
1206.	RI	he punched you and hit you with the pole
1207.	WLD	yeh
1208.	WLD	in the bathroom
1209.	RI	(2)
1210.	RI	you told us that ivan .
1211.	RI ri ^a	got his penis and you showed us on the picture \perp points to previously used line drawing of suspect \perp
1212.	RI	can you show us that picture again.
1213.	RI	you showed us.
1214.	RI ri ^a	what what ivan did ot points to previously used line drawing of suspect ot
1215.	io ^A	+holds up line drawing+
1216.	RI	on that . part of your body
1217.	WLD	do sex
1218.	RI	do sex .
1219.	RI	how did he how did he do that.
1220.	WLD	l dunno

A second pre-request sequence was launched in excerpt 6.10 (lines 1237-1246), wherein the RI attempted to explain and re-explain using simpler wording and instructions, as well as a combination of various aids consisting of 2 dimensional pictures, line drawings and 3 dimensional objects. The RI eventually recruited a strategy whereby she herself elected to demonstrate the related physical allegation (i.e. punching) to compare and use as a simulation of how the WLD could explain "making sex".

The RI started her embodied demonstration in line 1237 by saying, "you said that ivan punched you", "so this is ivan" (line 1238), "and this is WLD" (line 1239), "and if I do ivan" (line 1242), "hitting WLD puppet on shoulder and arm" (line 1243), while simultaneously and contemporaneously manipulating the two wooden mannequins in a manner that corresponded with the content of her talk. Having completed this lead up, the RI prepared the aids (by putting them down on the wooden bed in line 1249) for her request for information which she delivered in 1252, "can you show us. what how he made sex". The WLD responded in line 1252 with "I dunno".

Excerpt 6.10	Make sex: 2	2 nd "dunno"
--------------	-------------	-------------------------

1237.	RI	you said that ivan punched you.
1238.	RI	so this is ivan
	ri ^A	\perp holds suspect/ivan mannequin upright \perp
1239.	RI	and this is WLD
	ri ^A	\perp holds WLD mannequin upright with other hand \perp
1240.	RI	sorry IO can I give you this
1241.	RI	to hold WLD up for a second
	io ^a	+gets off chair; holds WLD mannequin on table near suspect mannequin+
1242.	RI	and if I do ivan
	ri ^A	\perp brings ivan/suspect mannequin close to WLD mannequin approaching from WLD's back \perp
1243.	RI	hitting WLD on shoulder and arm

	ri ^A	\perp rapidly moves suspect mannequin's arm to WLD mannequin's shoulder \perp
1244.	WLD	punched me in the arm as well
1245.	ri ^A	\perp moves suspect mannequin's arm to WLD mannequin's arm \perp
1246.	RI	punched you in the arm like that
1247.	WLD	yeh
1248.	RI	so. when
1249.	ri ^A	\perp puts both mannequins back on bed \perp
1250.	RI	ivan made sex with you in the bed.
1251.	ri ^A	\perp points to mannequins \perp \perp >
1252.	RI	can you show us. what how he made sex.
1253.	WLD ri ^A	I dunno ⊥,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

In spite of the RI demonstrating how the mannequins and miniature bed could be used to explain the "made sex" allegation, and including the word "show" (line 1252), the aids were unable to offer assistance in this instance. This dispreferred response was not addressed in subsequent interview talk and the interview progressed on to other topics. Although aids were successful in co-producing information in 113 of 115 instances of aided episodes, this instance illustrates that they are not always able to assist.

Although aids vary in their degree of abstractness as based on the *Gradual Shift* continuum (Park 1997), this factor alone is unlikely to impact on the choice of aid. In this specific example, it is likely that other WLD-specific linguistic factors such as firstly, the extent of the WLD's cognitive difficulties and secondly, her history of prior aid use, impacted her ability to understand the similarities in demonstrating the physical assault with the sexual assault. The researcher was not given access to this information, a limitation of the study which is returned to in chapter 7.

The researcher does acknowledge that it is likely that aids will be inadequate in facilitating communication with the range of linguistic abilities demonstrated by some WLDs.

6.5.6 Breakdowns that were disregarded

There were 9 breakdowns that were left unrepaired. In those situations aids were not recruited. In one of those instances (Appendix 7, interview 6, line 214) an IO used the word "precise" that the WLD did not understand and he used a speech based repair initiator (line 216) to rectify that breakdown. However this repair initiation was disregarded, with the IO progressing talk relating to her points to prove the case. IOs typically prioritised interview progressivity instead of interactional goals and some repairs were not attempted.

Aids therefore were not used in all instances of breakdown in these data. They were recruited in situations that IOs and RIs oriented to as being institutionally relevant. Aided repair for social reasons for example, was not prioritised as being institutionally pertinent.

Aids however, were generally perceived to be operationally advantageous, as the next section which discusses the survey findings of IOs' and RIs' perception of aids, demonstrates.

6.6 Survey findings

This author's emic perspectives as a practising RI with a background in speech and language therapy, and a special interest in LD, complements the etic view as a researcher and an outsider in terms of policing and investigative interviewing. The aim throughout this research was to strike a balance between etic and emic perspectives in order to obtain a deeper level of understanding of the topic (Adler and Adler 1987; Berry 1999; Taylor 2011) and this balance enabled the practical and operational implications to become clear over the course of this research.

Additionally as documented in chapter 3, reasons for carrying out a practitioner survey related to the desire to compare results of the analyses with IOs' and RIs'

perceptions in the workplace. Results from this online survey consisting of responses from 21 IOs and 21 RIs experienced with working with WLDs, (see Appendix 4) complemented the findings from this research. Some automatically generated percentages extracted from the online survey tool have been reported in this section to explicate the strength of agreement on a particular survey item however in keeping with the aims of this qualitative research, no further quantitative analysis has been attempted.

6.6.1 Aids as augmentative or alternative devices

IOs', WLDs' and RIs' orientations to aids as bona fide and legitimate resources for communication was confirmed by the results of the survey. 55% of respondents believed that aids typically augmented speech whereas 45% felt that communication aids served a dual purpose and sometimes augmented and on other occasions replaced the spoken word, thus enhancing the quality of evidence elicited.

This supported results of the analysis which indicated that aids mostly augmented spoken talk (section 4.2.3).

6.6.2 Types of information elicited

Perceptions of IOs and RIs mirrored the findings that aids could elicit more complex information than talk alone. Survey respondents reported that communication aids facilitated communication relating to people, places (such as where the allegation occurred), physical things or objects and descriptors of those things or people, all of which correlated with results of the data analysis (cf sections 5.3 and 6.5.1).

One respondent (45946497) noted that aids facilitated WLDs to answer "when" questions and used calendars and TV guides as a resource. Others felt that aids allowed WLDs to explain complexities of the allegation such as "sequences of actions and movements not mentioned verbally" (respondent 45783721) and other temporal concepts such as before and after. The comments "before and after is far more reliable with a visual aid" (respondent 45849693) and "making a

chronology of events" (respondent 45794986) with reference to timelines, were noted. These remarks complemented results of the data analysis which demonstrated how instructions were used to elicit temporal information.

In relation to other complex information such as multipart happenings, 68% of respondents believed that aids were successful in assisting communication. One respondent explained, "they struggle to communicate how people moved, so using figurines can make their account more accurate and coherent" (respondent 45898765) and another stated aids could be used "to recall what happened" (respondent 46193007). Aids enabled the telling of "movements that were not mentioned verbally" (respondent 45783721). These views confirmed results of the analysis that focussed on eliciting multipart happenings.

A large proportion of respondents surveyed (79%), stated that aids yielded positional information. For example, respondent 45783721 reported that aids provided information that consisted of "clothing and positions of it" and respondent 46177396 found that "positions in sexual abuse" were elicited more succinctly with aids. Positional information was one type of complex information that the analysis found was best elicited using instructions and actual objects such as wooden mannequins.

In addition to providing specific information, respondents also made reference to the emotional aspect of information elicitation. In other words, a belief was expressed that aids reduced the pressure of speaking and facilitated a WLD's confidence (45775712), resulting in more effective communication. Another respondent (45916140) made reference to the use of emotional regulation scales (cf Fig 1.1), which enable WLDs to indicate visually, how impacted they are at any given time, by the emotional aspects of interviewing. Such emotional regulation scales also enable an RI to assist with regulating a WLD's emotions moment-by-moment, so that their emotions do not impact effective communication.

Emotional regulation scales were not noted in the analysis in this research, however as noted in chapter 1, the aids analysed in this research was not an exhaustive list of all possible low technology aids recruitable.

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6.6.3 Repair or in Planned Intervention

The majority of survey respondents believed that aid use was more effective in PI than repair, although some felt both types of elicitation sequences were equally beneficial. None of the respondents believed aid use in repair was more effective than PI, a conclusion also reached in chapter 4.

Data analysis showed that both repair and PI were effective in eliciting information but there were twice as many instances of PI than repair. Analysis demonstrated that in PI, participants did not have to undertake repairing a breakdown, purging incorrect information, restoring intersubjectivity and then working on eliciting information, but progressed directly to eliciting relevant information. Since there were interactionally fewer phases involved in PI than repair, it was argued that PI was a more effective resource than repair in progressivity and elicitation of information.

6.6.4 Omitting aids, although beneficial

Respondents were asked how often aids were not used in an interview even though they believed a WLD would benefit. Reassuringly none of the respondents felt this occurred in every interview, however the majority did state that aid use did not occur on some occasions and a minority believed aids were often not used. Some respondents did not appear to find this an issue: according to them, aids were always used when their benefits were indicated.

The fact that some respondents believed that aids could have been used on more occasions is of concern and this research calls for practitioners' awareness of their affordances to be increased through training (section 7.3).

6.6.5 Reasons for omitting aid-use

Aids were not used predominantly because of IO-related reasons such as a belief that a particular aid will not be legally accepted in court, or that it is leading. Overwhelmingly respondents linked to IO-related non-use of aids to their insistence on eliciting a speech-only account. One respondent (45849693) blamed the quality of IO training and lack of specialist officers, which was attributed to funding cuts. Others make reference to IOs' poor understanding of atypical communication, lack of confidence (46136121, 46517090) and the need to get an ABE interview quickly (46193393).

RI-related reasons related to a lack of knowledge of case-specific information resulting in unavailability of aids (45965598) or where RIs have not been used in interview (45969077). The tension between the conflicting deontic and epistemic aspects of an RI-IO interaction was summed up by a respondent (45849693) by noting, "It is essential that the IO and RI work as a team to ensure that communication is facilitated and understood to a standard that a court can be sure is reliable." Reference to robust joint planning between IOs and RIs before an ABE interview is one of the recommendations made in section 7.3.1 in chapter 7. When two philosophically different professions intersect, one that orients towards the characteristics and idiosyncrasies of specific individuals (the RI role) and the other whose orientation is towards society as a whole (policing), a mutual emphasis towards collaboration is essential.

Respondents believed that WLDs were sometimes responsible for aids not being used and reasons noted were refusal or resistance due to them orienting to aids as being unnecessary. It must be noted at this point that WLDs themselves did not participate in this survey and the WLD-related reasons for omitting aids are based on IOs' and RIs' perceptions. Further research examining WLDs perceptions would be of interest.

6.6.6 Overall perception of aid use on quality

Survey participants interpreted quality according to their own interviewing (Ministry of Justice 2011) and RI (Ministry of Justice 2015) guidelines. All participants agreed that communication aids provided more information about the investigation when they were used. Participants believed aids allowed WLDs to particularise information, giving detail that would have been unlikely had aids not been used. Without aids, the investigation would have had reduced number and types of information available to IOs for the purpose of solving a crime, thus impacting the quality of evidence. Practitioners' impressions of the impact of aids on eliciting information echoed findings of this research.

6.7 Aids and Quality of evidence

The Youth Justice and Criminal Evidence Act defines quality in terms of "completeness, coherence and accuracy" (UK Parliament 1999)⁵³, and is therefore important in relation to the overarching RQ relating to the manner in which aids impact the quality of evidence in police investigative interviews. As stated in section 3.6.5, *completeness* in this research was considered to mean participants orienting to a WLD's communication as being sufficient in communicating all possible information that s/he intended to convey, using his or her preferred means. These analyses demonstrated that aid use resulted in an increase in the overall quantity of information. When speech only repairs relating to investigation relevant information were unsuccessful, otherwise leaving those many unrepaired answers, aided repairs resolved those breakdowns and were successful in yielding information, making WLDs' accounts sufficiently understandable and thereby more *complete*.

Coherence as defined in the Act involves "facilitating the type of answers that address the questions put to the witness" (Ministry of Justice 2011: 4). As stated in section 3.6.5, in this thesis, an answer that is aligned with the intent communicated in a question was considered to fulfil the criteria of coherence. For example, a request for information whose intent related to asking "what happened?" in an allegation should receive a response explaining the events that were involved in that allegation. A question asking "who" did something should elicit a person-focused answer, a question relating to "what position" something or someone was in, should elicit that specific type of answer, and so on. Section 6.5.1 presented the types of detail aids were successful in eliciting, which had a direct impact on improvement in the quality of WLDs' evidence, thus further contributing to addressing the overarching RQ initially set out in chapter 1.

Lastly, in this thesis, section 3.6.5 explicated that *accuracy* was taken to mean how closely aligned a WLD's actual communication was in answering the questions asked, compared with what s/he meant to communicate. Accuracy is

⁵³ As a reminder, this Act does not define 'completeness' or 'accuracy' although it does explain 'coherence', which was discussed in chapter 1. The interpretation of completeness and accuracy in this research was explicated in section 3.6.5.

not equated with the truthfulness of an answer because whether a response is true or not is knowledge that only that WLD can possess. That knowledge is not in the public domain and can therefore not be reliably measured. Furthermore, asking a WLD to confirm whether what they have communicated was aligned with their intent would likely lead to acquiescence. Individuals with LD demonstrate poor spoken communication and optimum communication results from the use of different and alternate means (Belva et al 2012). RIs ensured WLDs used their optimal communication modality. The more the response modality was aligned with WLDs' individual optimal communication modality, the more accurate were their formulations in answering the questions, thus resulting in a consequent improvement in quality.

6.8 Critical summary

This chapter has focused on the production roles assumed by all participants and has highlighted the nature of an RI's role in co-animating a WLD's new information. Although repair initiated by others is "ordinarily restricted" (Schegloff 1992: 1342) to only raising the problem while leaving the task of resolving the problem to the speaker of the trouble, this was not strictly the case in these data. In the majority of other initiated repair involving WLD-generated troubles, it was the RI who assumed responsibility for enabling a WLD to complete the repair. WLDs were frequently unable to complete aided repair without RI (and sometimes IO) assistance. The new production role that emerged from this analysis, which is being referred to in this thesis as *architect* demonstrated the interdependent, symbiotic and mutually contingent relationship between RIs and WLDs. Although it could be argued that any relationship between co-animators could cause biased new information, RIs worked towards reducing bias and minimised the risk of acquiescence by employing checking mechanisms during aid creation such as ensuring that RIs' drawn renditions (e.g. line drawings) replicated the perceptions of WLDs, thus ensuring that their iconicity was similarly viewed by both the creators (i.e. RIs) and users (i.e. WLDs) alike.

When RIs' and IO's respective epistemic and deontic roles were violated, both parties carried out interactional work in order to re-establish those asymmetries in order to jointly work towards the institutional goal of eliciting investigation relevant information.

The RI role was shown to be dissimilar to an interpreter in three distinct ways, but the key difference was established in episodes of PI where aid use was previously discussed and agreed between an IO and an RI. RIs proactively recruited aids to preempt a possible future breakdown. In the process of language brokering, they switched alignment between WLDs and IOs seamlessly, progressing an interaction but contrary to typical language brokering situations where the less competent speaker is bypassed and the broker is selected as next speaker (Bolden 2011, Cahill 2010), RIs actively initiated engagement with WLDs in the co-production of evidence.

Aids were advantageous in eliciting a range of types of information that related to IOs' institutionally relevant points to prove their case, which were operationally of benefit in improving the quality of evidence elicited.

The next chapter focusses on a critical evaluation of the three analyses chapters and demonstrates their grounding in current published research, with the aim of discussing their theoretical contributions and operational value in the workplace. It concludes with the limitations of this study and directions for further research.

7 DISCUSSION

This research was designed to answer the overarching RQ set out in chapter 1:

What is the impact of low technology communication aids on the quality of evidence in RI-mediated ABE investigative interviews with witnesses with an LD?

To the best of the researcher's knowledge, this thesis has provided the first interactional analysis of low technology communication aid use in such interviews, situating itself within the broad genre of institutional interactions, but also offering a more focussed theoretical insight into this specific type of previously unstudied embodied atypical interaction.

An analysis of seven RI-mediated ABE interviews with WLDs was carried out, which elicited 36 episodes of aided repair, as well as 79 episodes of PI i.e. episodes where low technology communication aid use was planned by the RI and IO in order to avert a possible future conversation breakdown. All interviews related to a serious physical or sexual allegation. Analyses presented in chapters 4, 5, and 6 critically evaluated the manner in which aids were recruited by RIs, IOs and WLDs as repair devices, and in episodes of planned intervention. They were typically recruited by an RI in their role of architect, and in doing so, it is argued here that their employment improved the quality of evidence elicited by WLDs.

Additionally, a survey of 21 IOs and 21 RIs was conducted to corroborate results of the qualitative analyses against practitioner perceptions on communication aid use in police investigative interviews.

This chapter begins in (7.1) with a evaluative summary of the answers to the 3 sub-questions within the overarching RQ, then emphasises in section (7.2), the importance of the theoretical contributions of this research. Next in section (7.3), the focus shifts to accentuating its operational impact and highlights the potential importance of this research for practice in the workplace. Section (7.4) reports some limitations and suggests avenues for further research. Some concluding thoughts are presented in section (7.5).

The institutional goal of ABE interviews analysed was to elicit investigation relevant information from a WLD in relation to a serious physical or sexual

allegation, during the evidence gathering stage of an investigation, of which an ABE interview forms part. All information was considered investigation relevant (Ministry of Justice 2011) and therefore qualitatively valuable. The RQs in this research focused on participants' orientations to aids as tools for talk and the meaning they created of and with them in dynamic, face to face interactions, in situ. In agreement with Jewitt et al's (2016) view of multimodal analysis in relation to these aims, Conversation Analysis was identified as the most appropriate analytical tool to answer the RQs. The overarching RQ was therefore subdivided into 3 sub-questions, reproduced here for ease of reference:

- 1. How are low technology aids oriented to by interview participants (IO, WLD and RI) in eliciting information and what are the sequential interactional phases during which they are recruited in aided episodes of interaction (repair and planned intervention)?
- 2. What is the contribution of aid-mediated actions involved in pre-request and request-response sequences in eliciting information?
- 3. In what manner do participants negotiate their production roles with the aim of eliciting information and what are the outcomes of using aids in this process?

In brief, analyses demonstrated that quality of evidence improved with aid use, as summarised here.

7.1 Evaluative summary of answers to 3 sub-questions

The analyses consisted of an examination of 115 episodes of aided repair (n=36) and PI (n=79), extracted from 7 real RI-mediated aided ABE interviews. See Appendices 6A-C for a tabled list of them, each of which has been cross referenced against aid use as a first or second course of action, the participant initiating repair, the one completing repair, their success in eliciting information and the type of information elicited. Each of the three sub questions has been considered in turn.

7.1.1 How are low technology aids oriented to by interview participants (IO, WLD and RI) in eliciting information and what are the sequential interactional phases during which they are recruited in aided episodes of interaction (repair and planned intervention)?

This dual-focused sub-question was addressed in chapter 4. Understanding WLDs', IOs' and RIs' orientations towards aids gives an indication of their usefulness in eliciting investigation relevant information from the participants' perspectives. IOs' requests for information were primarily accomplished via questions, which necessarily needed to result in responses from WLDs, as the holders of allegation-specific information. As has been discussed, WLDs do not have the necessary skills to answer all the questions verbally and thus, in these interviews, two enacted Special Measures (UK Parliament: 1999) were employed, namely, the recruitment of an RI and communication aids.

Discussing the 36 aided repairs first, conversation breakdowns occurred primarily in WLDs' talk and to a lesser degree, in IOs' talk. Those aided repairs were derived from a total of 135 episodes of conversation breakdowns (see Fig 4.1 page 110 and Appendix 6A), which resulted in repair being initiated in the majority of them $(n=130/135)^{54}$. Speech was typically used as a first course of action (n=107/130), which resulted in repair (n=90/107) however when unsuccessful (n=17/107), aids were recruited as a second course of action $(n=13/13)^{55}$ resulting in all of them being successfully repaired, producing investigation relevant information, positively impacting the quality of evidence.

On other occasions, repair was initiated using aids as a first course of action (n=23/130), demonstrating participants' orientations to them as tools without which evidence was unlikely to have been generated. They were overwhelmingly successful (n=22/23) in repairing those breakdowns, demonstrating their positive effect on the quality of evidence gathered, without which there would likely have

⁵⁴ Five of these breakdowns remained unaddressed and participants prioritised interactional progressivity over repair.

⁵⁵ Four of these unsuccessful speech repairs were left unaddressed, with participants progressing to other interview topics.

been unresolved problems with WLDs' accounts and a consequent paucity of evidence.

Secondly, there were 79 episodes when IOs and RIs employed aids prophylactically, orienting to them in a planned manner as a preferred primary resource, clearly demonstrating their stance towards them as a troublepreventative devices. Although pre-interview planning interactions were not available for analysis, evidence of them having occurred was frequently demonstrated in the data, where IOs and RIs made spoken references to preinterview talk prior to engaging in an episode of PI (section 4.6). Of these, 78 elicited investigation relevant information, thus demonstrating that aid use in PI had a positive impact on the quality of evidence gathering.

Of relevance relating to the manner of use, is participants' interactional orientation to the rich affordances offered by aids. No insistence on using speechonly communication was noted in any of the 115 aided episodes. Additionally, IOs and RIs modified their talk to introduce words such as "show" and "demonstrate" (e.g. Appendix 7: Transcript 1 lines 427, 916, 985; Transcript 2 lines 516, 737, 868; transcript 4 line 424; transcript 6 lines 305 and 417) rather than "tell", clearly indicating their orientation towards using aids as useful resources to elicit evidence. This response design allowed WLDs to provide answers in a manner that was more aligned with their preferred linguistic modality at the time, namely, relying on the visuospatial rather than aural-oral mode, therefore improving the accuracy of their responses, as used in this research.

Participants consistently oriented to aids as discrete semiotic units that increased the specificity of their talk. When IOs and RIs oriented to speech alone as being insufficient in repairing a breakdown, they upgraded the specificity of their talk by recruiting aids. This was noted in PI as well, which positively impacted the production of evidence. IOs, RIs and WLDs repeatedly demonstrated their stance that elicitation of specific points to prove a case was not dependent on speechonly communication, but was contingent on aid use, which was at times a preferred means of communication.

In the majority of instances (n=87/115), aids were used as augmentative devices i.e. as tools that were used in addition to spoken language in the final aided

response, however, there were 26/115 instances of them being used to replace speech i.e. as resources that were used as an alternative to spoken communication in the final answer of a sequence.

Aided Other-initiated repair was accomplished in two types of sequence expansions: insert sequences, inserted after a problematic first pair part, and post-sequence expansions, produced after a problematic second pair part (Section 4.4). Each aided episode was divided into three interactionally simpler phases which were aid proposal (typically initiated by an RI), pre-request sequence and amended aided request. In PI, an additional component i.e. announcement, was observed, produced by an IO prior to an RI's proposal, which announced the topic of that stretch of talk. Aids were recruited during all of these phases (except announcement) for different but targeted purposes, resulting in specific interactional outcomes, all of which were concerned with the overarching institutional goal of eliciting evidence.

Aids made a WLD's evidence more complete: It is argued in this thesis that they facilitated them to communicate more information that they would have been able to using the aural-oral modality, in a manner that suited their communication needs (cf section 6.7).

7.1.2 What is the contribution of aid-mediated actions involved in pre-request and request-response sequences in eliciting information?

Analysis of the 2nd sub-question demonstrated the manner in which aids contributed to WLDs answering an IO's request for information, in a manner that was most suited to their preferred communication modality. Aids recruited during the pre-request phase interactionally established common ground, enabling intersubjectivity to be maintained, thereby facilitating WLDs to produce a more pertinent answer in response to an IO's investigation relevant question later on. Common ground was established through the aided embodied actions of placing, positioning, showing and removal of aids in the relevant o-space in between the interview participants, thereby increasing their relevance. An aid's specific affordances were disambiguated and emphasised even further by the physical actions of pointing, tapping, circling and cutting. Aids were also recruited as tools to answer option-posing questions, that atypically communicating WLDs could use to answer with, framed so as to offer a wide range of options, when speech only communication was linguistically unlikely to be successful. Published research (Dent and Stephenson 1979; Fisher and Geiselman 1992; Lamb et al 1996; Sternberg et al 1996) and interviewing guidance (Ministry of Justice 2011) in relation to conventional interviews urges IOs that closed questions are less desirable. However focused closed questions posed in the manner analysed in chapter 5 (section 5.2) demonstrated how IOs and RIs used them with WLDs in a manner that reduced acquiescence, thereby eliciting relevant information and positively impacting quality.

Furthermore, when the affordances of aids (such as wooden mannequins and timelines) were exploited in more creative and previously under researched and undescribed ways (section 5.3) as instructions, they facilitated a WLD to answer more complex concepts such as positional information, multipart happenings relating to the allegation and temporal ordering of information. The manner in which evidence was dynamically elicited as an allegation sequentially occurred over time, enabled the IO (and future counsel, judge and jury) to understand a more coherent and complete version of the allegation. It is known that WLDs struggle to fully answer open questions verbally (Perlman et al 1994) and this analysis has demonstrated that aided instructions were recruited in a manner that served the function of open questions giving the WLDs a better opportunity to give their account more accurately, in their own 'words'. Linguistic barriers traditionally associated with interviewers asking complex multipart questions related to temporal ordering of information verbally (Fisher and Geiselman 1992; Prosser and Bromley 2012; Shepherd and Mortimer 1996) were thus minimised.

7.1.3 In what manner do participants negotiate their production roles with the aim of eliciting information and what are the outcomes of using aids in this process?

A key finding that emerged in chapter 6 in answer to this RQ was that in the context of Goffman's (1981) participation framework, RIs as language brokers, emerged in a previously undescribed production role, argued here as *architect*.

RIs proposed, created and shaped aids (e.g. line drawings), personalising them to suit the linguistic requirements of a WLD, thus enabling WLDs to animate their self-authored answers. Equally, the interactional abilities and linguistic resources available to a WLD determined an RI's selection of animation proposed. This symbiotic co-dependency of participants was repeatedly evidenced in the analytic chapters. By facilitating WLDs to manipulate co-animated visually presented 'utterances' (i.e. line drawings, mannequins etc) autonomously, ensured that their evidence was presented in a manner that suited their interactional abilities, thus likely increasing the accuracy, coherence and completeness of their answers.

As a reminder, although aids were proposed by RIs, the initial concept that needed animation always originated from the WLD. ABE guidance states that IOs should be aware of the "risks and pitfalls" of inappropriate aid use (Ministry of Justice 2011: 89) and recommends that they should be introduced after a WLD has first done so him/herself. Aid creation and personalisation was only accomplished after WLDs had first introduced a concept themselves, and thus criticism or accusations of coaching which have historically been made, are thus minimised. In other words, RIs' interventions with WLDs did not relate to what the evidence should be but rather how to elicit that WLD-originated evidence.

The deontic and epistemic rights and responsibilities that IOs and RIs experienced were continuously negotiated through talk. Typically IOs announced the topic to be discussed and RIs proposed a suitable aid. The interactional work that both accomplished to maintain their epistemic and deontic responsibilities worked towards the overall institutional goal of eliciting evidence, thereby impacting the quality of a WLD's evidence.

Results of the IO and RI survey revealed that practitioners' perceptions on the relevance of aids mirrored the results of the analysis, in that aids improved the quality of evidence.

The next section discusses the specific theoretical contributions this work has provided to particular areas of research.

7.2 Theoretical contribution

This study makes theoretical contributions to knowledge in 7 different areas:

(1) The sequential organisation of aided sequence expansions, (2) preference for Other-initiated Self-repair, (3) strength ordering in aided Other-initiated repairs,
(4) relevance of embodied actions in multimodality interactions and (5) Instructions in atypical communication all of which expand our current knowledge of CA.

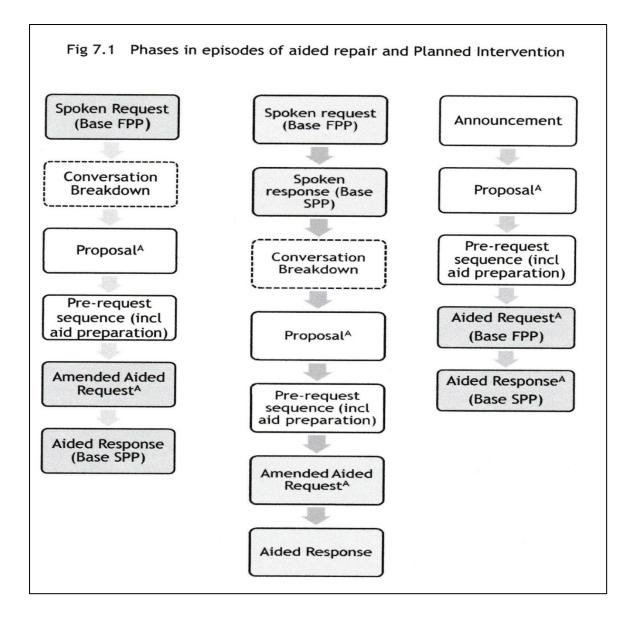
Additionally findings made in the areas of (6) Goffman's production roles and (7) language brokering, extend our knowledge in those areas. Each of these contributions is discussed in turn.

7.2.1 Sequential organisation of aided sequence expansions

Although speech-focused sequence expansions have been researched (Sacks et al 1974; Schegloff 2007), there is little research on the structure of aided sequence expansions and this research addresses that gap by analysing this corpus of atypical interactions.

This research has added to the CA literature by identifying the distinct trajectory and interactional phases that emerged within these aided sequence expansions, namely aid proposal, pre-request sequence (including the embodied actions of aid preparation) and amended aided request (sections 4.4. and 4.6). Pre-sequence expansions (i.e. PI) additionally consisted of the additional announcement, which preceded the proposal phase.

A schematic representation of these interactional phases has been reproduced here (Fig 7.1) as a reminder of the detailed analysis explicated in chapter 4.



Understanding the discrete phases in aided sequence expansions, their relationships with each other, including the interactional impact one has on the next, extends our knowledge base on the manner and positioning of aids when recruited into talk to accomplish an institutional goal. This knowledge has operational implications (section 7.3) but also provides the basis for further research on aided multiparty interactions.

In terms of proposal making, this research complements other research on proposal making in speech-only talk where individuals' negotiate their deontic and epistemic rights (Stevanovic 2012, 2013; Stevanovic and Peräkylä 2012). However additionally, it adds to the literature on how these rights and responsibilities are managed in three party interactions where individuals' deontic rights (i.e. IOs, in

this research), epistemic rights of expertise (i.e. Rls) and epistemic rights of experience (i.e. WLDs) are negotiated in order to accomplish an overarching goal (i.e. evidence, in this research).

In contrast with the view that pre-request sequences frequently dispense with the need for an overt request (Levinson 1983), these data have shown that aided pre-request sequences with atypically communicating WLDs almost always resulted in IOs and RIs orienting to the need for an explicit, overt request for information, in spite of sequences of aid preparation following a topic announcement. Participants oriented to requiring to modify the usual rules of typical conversation in interactions with atypically communicating WLDs.

A further contribution to the theoretical literature lies in the area of initiation of repair and is explicated next.

7.2.2 Other Initiation of self-repair

While the majority of repair that addresses problems in speaking, hearing and understanding in speech-only communication is Self-initiated Self-repair (Schegloff et al 1977; Schegloff 1979), contrary findings are noted here with these WLDs (Section 4.2) using aided communication. In a corpus of atypical interactions such as this, where difficulties establishing common ground resulted in a dependence on Other to identify a WLD-generated trouble, it is Other-initiated Self-repair that predominates. WLDs lacked the interactional resources to instigate a repair resulting in a preference for Other-initiated Self-repair.

A 3rd area of theoretical relevance relates to the strength ordering (specificity) of repair techniques when used to repair a breakdown and is discussed next.

7.2.3 Strength ordering (specificity) or repair initiator devices

In support of findings by Egbert (2004), when multiple repair sequences were used to repair a breakdown, here too, a repair episode was divided in to smaller manageable sections, each orienting to a separate but semantically linked trouble source. Each repair initiator device used was recruited based on their increasing specificity, according to Schegloff's (1977) typology. However the additional finding in these data, is that when it was not possible to increase the specificity using speech only repair devices any further, IOs and RIs recruited aids to do so (section 4.2.1). In other words, aids were recruited as repair devices when typically communicating participants oriented to increasingly specific speech-only devices as being insufficient.

This adds to the current CA literature by demonstrating that modifying repair initiators in the aural-oral modality is not the only manner in which specificity can be increased. Using the visual-spatial modality by recruiting aids is another interactional resource that participants have available to them in order to increase the specificity of repair.

7.2.4 Multimodality interactions

This thesis contributes to the growing body of interactional research on multimodal communication involving material objects (Streeck 1996; Norris 2004; Goodwin 2011; Haddington et al 2014, Jewitt 2011; Mondada 2014c; Nevile 2015, Nevile et al 2014, Weilenmann and Lymer 2014; Mondada 2018) which all agree that objects impact sequences of talk to a great extent. This thesis posits that the manner in which participants orient to objects is crucial and it is this orientation that shapes recruitment of one aid over another, thereby progressing an interaction. Just as repair is considered a central mechanism for maintaining intersubjectivity (Schegloff 1992), this thesis also asserts that in aided interaction, aids are a further device for accomplishing that goal.

Furthermore, it is embodied actions that orient a participant's orientation to an aid's specific affordances, rendering them relevant. Like speech, embodied actions vary in terms of the degree of propositional content they convey. More generic embodied actions such as retrieving, placing, removing and positioning, direct a recipient's attention to an object as a whole (an aid, in this research) whereas other embodied actions such as pointing, tapping and circling (for example, a body part on a line drawing of a person) are feature-directing actions and direct the recipient's focus to a precise aspect of the object. The latter actions increase the specificity and relevance of one of an object's affordances over another.

Therefore, just as objects and talk in multimodality interactions co-exist and gain relevance when they occur in the presence of each other (Mondada 2012, 2014c), this thesis adds to the current literature on multimodal analysis by asserting that objects gain relevance in the presence of associated general and increasingly specific embodied actions. An object introduced into an interaction would simply remain an object to be gazed at without the need to interact with, or its affordances realised unless attention was directed to it in some way. This thesis demonstrates that the manner in which that is accomplished is through specific embodied interactions, which in doing so, shape participants' orientations to the affordances of aids (sections 4.5 and 4.6).

Multimodal analysis from a CA perspective as used in this thesis, enabled aids and embodied interactions to be analysed in the context of each other, demonstrating the appropriateness of this approach to analyse these data.

7.2.5 Atypical communication: Instructions

Low technology aid usage in everyday interactions in education (see Light and McNaughton 2012 for a comprehensive summary) and rehabilitative contexts (Sacchett et al 1999; Goodwin 2011; Wilkinson et al 2011; Aaltonen et al 2014; Carlsson et al 2014; Reitz and Dalemans 2016) is now widely researched. However low technology aid use in investigative contexts is developing more slowly (Dando et al 2009; Henry et al 2017), and especially when needing to convey complex abstract concepts.

Typically, within the CA tradition, more knowledgeable instructors design their instructions such that they shape and modify less knowledgeable instructees' behaviour in order to enable recipients to align with the instructors' own goals (Antaki and Kent 2012; Craven and Potter 2010; Ekström et al 2009; Mondada 2014a, c). In contrast, this thesis has demonstrated the manner in which less knowledgeable instructees (IOs and RIs, in this research) instructed more knowledgeable instructees (WLDs, in relation to an allegation) in order to facilitate relevant knowledge transfer. In other words, the direction of knowledge transfer was reversed (section 5.3).

This unique manner in which instructions were recruited in ABE interviews extends our knowledge of atypical communication, specifically with WLDs. It demonstrates that instructing individuals with expressive communication difficulties to carry out achievable concrete physical embodied actions, enables them to communicate complex abstract concepts which would otherwise have remained uncommunicable.

7.2.6 Goffman's production roles

This research has added another dimension to the traditional roles of Goffman's (1981) animator (i.e. the talking machine) and author (constructor of the sentiments) by suggesting a new previously undescribed one, namely architect, capturing aspects of both in RI-mediated aided interactions.

When WLDs were unable to undertake the role of an animator, a conventionally construed talking machine due to the complexity of the expressive communication elements of the task, RIs in combination with WLDs co-operatively undertook this task. WLDs retained their role authoring their answers however in some circumstances, animation of their answers without an RI's input would have been impossible. In assuming this unique symbiotic interactional position, a previously undescribed equal role of architect (section 6.1) was proposed, thereby extending our understanding of production roles in the context of atypical RI-mediated interactions. The manner in which architecting was accomplished was such that possible future accusations of coaching or acquiescence would be unfounded. The operational impact of this theoretical point would have positive implications in other scenarios where individuals with similar difficulties with communication need empowering.

7.2.7 Language brokering

An RI's role in the theoretical area of language brokering is unique and is different from the brokering role observed with individuals with immature language abilities such as language learners. Although language brokers in that context sometimes do monitor the talk of immature speakers (Bolden 2012) brokering there is carried out to repair a conversation breakdown and language brokers complete the repair themselves. Similarly, same-language interpreters interpret a source message using the same output modality (i.e. speech) and complete the targeted repair if needed (Hlavac 2014). RIs as language brokers in this context, typically did not complete repair on the behalf of those with immature language skills (WLDs in this research), but overwhelmingly facilitated them to complete repair themselves. Additionally, RIs, did not necessarily retain the same input modality but used devices such as aids from the visuo-spatial modality to provide brokering assistance, thereby demonstrating a novel language brokering role in this specific context.

Additionally, conventional language brokers such as interpreters typically do not anticipate possible future breakdowns (Association of Police and Court Interpreters 2010, Hlavac 2014), thus assuming a reactive role in that respect. RIs on the other hand, in their role of language brokers, proactively engaged in planning for and mitigating against possible future breakdowns.

This research has described a new type of brokering role, where the language broker (e.g. an RI) not only identifies the location and timing of possible breakdowns but also makes provisions for resources that can alleviate or prevent them from occurring. This role is currently unique to RI-mediated multiparty interactions thereby enhancing the bank of current research in the area of language brokering.

Besides the above-mentioned theoretical contributions, aids were practically adopted in several ways. The focus of this research has always been qualitative: a micro analysis of the manner in which aids were recruited and how their affordances were exploited in order to generate and co-produce evidence was the ultimate and overriding goal. This research consisted of a sufficient number of episodes of aided repairs (n=36) and PI (n=79), thus enabling several in-depth and detailed assertions to be made in terms of the transferability of findings and specifically, its ecological validity, to enable its consequent workplace impact on practice. The next section focuses on the operational implications in the workplace.

7.3 Impact and operational implications in practice

The thesis has repeatedly demonstrated the manner in which aids have enabled WLDs to communicate their evidence in a manner that suited them. Whilst inwork practical experience is of great benefit to any professional institution, empirical evidence is fundamental, for example if work practices are challenged in a professional context and is crucial in establishing a sound knowledge base upon which further research can be initiated. Therefore the readership of this thesis has been designed to be dual focussed. While the main audience will be academic, it is hoped that the conclusions and recommendations will benefit inwork professional practice of the growing community of RIs and allied legal professionals. This section is concerned with how the findings of this research could potentially impact practice operationally and it includes recommendations for future practice.

Although legislation and best practice guidelines in relation to communication aids use with WLDs do exist (Ministry of Justice 2011, 2015; The Advocate's Gateway 2015b; HMCTS 2019), empirical studies evaluating their effectiveness and the interactional consequences of their use in police investigative interviews do not. This research has filled that gap, thereby also providing a foundation from which further empirical studies can be based.

The practical aspects of this research are of great importance and could potentially impact the areas of investigative interviewing, on several levels:

- 1. Training of IOs in interviewing individuals with an LD
- 2. Demonstrating the importance of trained RIs and in this context, encouraging greater use of them
- 3. Extending the use of aids with vulnerable suspects and defendants

All the above areas of practical implications will be considered in turn below, starting with IO training.

7.3.1 Training of IOs in interviewing individuals with an LD

Training content varies with each of the 43 police Forces across England and Wales. Although the College of Policing determines the learning standards all Forces are required to adhere to in their training (College of Policing 2013-2019), the actual course content is left up to individual Forces. The current interviewing training curriculum emphasises the importance of RI input however does not include the ways in which RIs can work. Therefore IOs' awareness of multimodality communication and aid-mediated interviews is minimal. Additionally, the Victims' Commissioner (2018) found that IOs' understanding of the RI role to be substandard. This section recommends IO training incorporates raising awareness of specific RI-mediated practices that involve the use of aids.

Plotnikoff and Woolfson (2015) found that IOs still view aids with suspicion. However results of the RI-IO survey demonstrated that experienced practising IOs had positive opinions of aid use. Therefore It is anticipated that raising awareness at the start of an IO's interviewing practice will enable a wider acceptance of aids as tools for talk in interviewing thus positively shaping their orientations to aids as assistive devices for witnesses with atypical communication.

As per the agreement with the police Force that provided the data, this researcher provided regular progress reports throughout the process. Additionally, the Force suggested that post-viva the researcher might be invited to meet members of the Academic and Research department, a department heavily influential in Force training design, to discuss her findings.

i. Specifically, the use of "show me" rather than "tell me" in aided interviews should be highlighted to IOs. Care should be taken however, that indiscriminate use of the word "show" does not lead to IOs using it with all witnesses irrespective of vulnerability, which could result in witnesses demonstrating allegations on themselves, something that interviewing guidelines warns against (Ministry of Justice 2011). Awareness raising does not aim to replace the use of a skilled RI but instead, to demonstrate that an IO's interviewing language may need to be modified when recommended by a skilled professional such as an RI. ii. Secondly, IOs' training should include an explanation on how the careful and knowledgeable use of instructions can be used with aids such as mannequins and line drawings to overcome WLDs' expressive difficulties. This knowledge would reduce an over emphasis on classically constructed open questions (i.e. Tell me/Describe/Explain) which are generally recommended in interviews with typically communicating witnesses. Awareness of the relevance of aids should demonstrate how the function and intent of open questions can be retained while minimising the complexity of the linguistic construction. However haphazard incorporation of instructions without monitoring a WLD's understanding and specific communication abilities should be guarded against. Therefore although the researcher is recommending awareness raising in IO training, arbitrary IO-managed aid use across the board, is not.

From a personal perspective, this researcher's practice and training of new RIs has changed post analysis, to include the informed use of instructions and "show me".

- iii. Thirdly, IO training should appreciate the option that using everyday objects as aids to communication can be successful, as was accomplished in examples of bricolage in these data. However, care should be taken that these objects are chosen prudently by an RI, whose understanding of their affordances, together with a knowledge of a WLD's specific communication difficulties, would be necessary in order to make a judgement regarding that object's suitability.
- iv. Fourthly, although IOs' interviewing guidance cautions IOs to check WLDs' use of own words and phrases, interviewing training should explain how this also applies to co-animated 'utterances' that are architected by RIs. It is important that a WLD's account remains her or his own and that Others' preconceived concepts of jointly animated line drawings or similar, are not projected on to WLDs' animations.
- v. Bearing in mind that current interviewing training does not include the manner in which RIs and aids can impact quality of evidence, future training that focusses on developing a shared understanding of the rights and

responsibilities of the RI role in proposing and managing aids use, would demystify their use thereby asserting their relevance as legitimate additions to conventional talk. Encouraging IOs to specifically and explicitly refer to aids in interview talk by describing a WLD's aided actions for example, thereby increasing the relevance of aids e.g. "you've placed his arm on your shoulder" would assist unseen over-hearers to appreciate the evidence more completely.

- vi. Plotnikoff and Woolfson (2019) found inconsistencies in whether preinterview planning with intermediaries occurred. This research has demonstrated that aid use is interactionally more efficient with episodes of PI, where recruitment of aids has been discussed and agreed pre-interview. Highlighting the interactional importance of pre-interview planning meetings, which have a consequent positive impact on eliciting investigation relevant information should be included in IO interviewing training.
- vii. The term accuracy can often be misleading in the context of aid use in police interviews. Whereas accuracy is more conventionally thought of in terms of truthfulness, which is something only known to a WLD her/himself, this thesis recommends its interpretation in relation to aid use should be reevaluated and applied more in line with the way it is analysed in this thesis. The response a WLD demonstrates when s/he is understood by an IO, evidences that their actual communication accurately correlates with their communicative intent. Reconceptualising accuracy in this manner in relation to aids and quality of evidence will further improve their perceived usefulness and standing in the Criminal Justice System.
- viii. Furthermore, in relation to training but extending that receivership to include other criminal justice practitioners, this thesis now recommends that awareness raising of the importance of communication aids on eliciting evidence should also be made in relation to barristers and judges. Although addressing communication vulnerability in the Criminal Justice System has now been introduced to barristers and judges (The Law Society 2017), curiously that training has been written and is being delivered by barristers who are specialists in law, and not RIs who are specialists in communication

vulnerability, and this inconsistency should change. Besides the recommendation that such training should ideally be written and delivered by RIs, specialist topics such as communication aids and their impact on effective communication should be delivered in such training by RIs.

7.3.2 Greater use of trained RIs

The research analyses here have highlighted the positive impact of using aids when recruited by RIs with WLDs in police investigative interviews. Aid recruitment in atypical communication is not indiscriminate and requires a robust understanding of a WLD's individual and idiosyncratic linguistic abilities as well as a sound understanding of the affordances of aids, when they should be recruited, the type of information they would assist with and in what specific circumstance. The manner in which RIs recruited aids confirmed the principle that one size does not fit all and that their assistance in using appropriate interviewing techniques was central to the overarching institutional goal. Although an interview supporter is allowed in an interview on some occasions, they are not legally permitted to intervene in relation to a WLD's communication and would not typically have an in-depth understanding of atypical communication or how an account can be elicited using other legally permitted means. Therefore it is essential that a trained independent Other is present in the interview to facilitate eliciting an account.

An RI is also useful in catering for the needs of unseen ratified over-hearers such as a future jury, counsel and judges. RIs demonstrated an awareness of the interactional requirements of non-present Others who might not appreciate the relevance of aids and their affordances when viewing the recorded ABE interview at trial. RIs provided a gloss in relation to the aids used, for example by stating, "pictures of scenes" (excerpt 4.4, page 129) to make a current embodied action "sequentially connected" (Drew 1997: 96) with the prior, thereby highlighting the relevance of aids in relation to spoken talk.

Additionally, RIs' interactions and modelling behaviours positively impacted IOs' practice, providing on the job training, as was demonstrated in several examples throughout the thesis. One such example of this occurrence presented in excerpt

5.7 (page 183), where the IO specifically requested of the RI, "So. now can we demonstrate inside and outside . in some way please". At times, RIs began an aided instruction and IOs then used similarly worded instructions based on the RI's previously modelled talk. Excerpt 6.7 (page 210) demonstrated an instance where an IO spontaneously used his hand to support his question but when that failed, he adopted a previously used aid that the RI had successfully introduced and managed in an earlier section of the interview.

The upshot of the above discussion is that RIs have the required fundamental knowledge base in language, atypical communication and disability, as well as the intricacies of aid-use in order to incorporate them into spoken language in a non-leading, unbiased, stepped and cumulative manner. However they are under-used (Plotnikoff and Woolfson 2019; Victims' Commissioner 2018) and this thesis therefore joins other calls for RIs to be used more frequently with vulnerable witnesses (Plotnikoff and Woolfson 2015, 2019).

7.3.3 Vulnerable suspects and defendants

This research adds to the emerging body of work currently available on the importance of intermediaries and communication aids in the Criminal Justice System for vulnerable witnesses and alleged victims (Cooper and Mattison 2017; Henry et al 2017; Plotnikoff and Woolfson 2015, 2019). The 1999 Youth Justice and Criminal Evidence Act that makes provision for the use of communication aids (Section 30), pre-recorded evidence in chief (Section 27) and RIs (Section 29) conversely does not cater for the communication vulnerabilities experienced by suspects and defendants and consequently their vulnerabilities are not routinely catered for.

Although this research only addressed adult WLDs, research design was not dependent on a participant's status as a witness or defendant (although all of the interviewees were witnesses). The research focussed on the impact aids had on atypical communication, and specifically on LD. Difficulties in communication are not the premise of witnesses only but can impact anyone and at any time. The findings suggest that the results have the potential to transfer to the wider Justice System to enable greater access to aids and intermediaries for other vulnerable groups. This research therefore joins calls made by others in relation to extending the opportunities to access Special Measures in relation to vulnerable defendants (Cooper and Wurtzel 2013; O'Mahony et al 2016), suspects (Gerry and Cooper 2017; Justice 2017) and in Family Courts (Cooper 2011).

7.4 Limitations and Recommendations for future research

7.4.1 Video recordings

As noted in chapter 3, all video recordings in these data were carried out by IOs whose sole purpose was to capture evidence for the purpose of solving a crime: their equipment and recording actions were not research oriented. Consequently, positioning of recording equipment was dependent on the setup at individual interview suites which resulted in recording of some embodied actions (including facial reactions) being wholly dependent on variables such as lighting, positioning and angles of cameras, area of focus (i.e. wide angled v close-ups), all of which were out of the control of the researcher and additionally, different to the "semiotic field" (Streeck et al 2011: 2) accessible to the participants. The type of embodied actions recorded however, are sufficient for the requirements of a court of law.

Having acknowledged that typical ABE interviewing is not oriented to research, police Forces in England and Wales typically do have a research department aimed at furthering the College of Policing's strategy in understanding "what works" (College of Policing 2013-2019). In order to focus specifically on some types of embodied actions (such as the possibility of a WLD gazing at an aspect of an aid when their head orientation may not indicate such), researchers and police Forces should ideally work collaboratively to ensure that camera angles and positions can be controlled more stringently, enabling researchers' and participants' semiotic fields to be aligned more closely.

Furthermore, easier access to valuable research focussed interviewing data would enable further in-depth studies of interactions in investigative interviewing. Whilst bearing in mind the need to protect an individual's data (UK Parliament 2018), a call is now being made to relax those access restrictions so that future research can be carried out more expediently in a safe and respectful manner that benefits the wider society for the protection and detection of crime. While 7 interviews used in this research provided a sufficient number of aided episodes, it is possible that an examination of a greater number of interviews could reveal aids impacting quality in other aspects.

7.4.2 Jury perceptions

A second linked area of future work, although not related to a limitation of this work, because this research specifically focussed on WLDs, relates to the perceptions of aid use in a population of under-researched participants, such as members of the jury, prosecution and defence counsel, magistrates and judges, who although not directly involved in interviews, are unaddressed ratified over-hearers. Analysing jury perceptions is currently legally impossible in England and Wales and currently only simulated research (Brown and Lewis 2013; Krahenbuhl 2019) is available.

Brown and Lewis's (2013) found knowledge of a witness' LD affected mock jurors' perceptions of his or her competence whereas Krahenbuhl's study (2019) found that an RI presence in simulated trials did not affect mock jurors' perceptions. However, in this researcher's opinion, simulations and mock juror research remains unrepresentative of actual perceptions of a jury and if future legislation permits, an examination of their views on aid use would throw valued insight in legal settings. From personal communication with IOs, counsel and judges over a period of 14 years, as well as from posts on the closed Registered Intermediary Online forum (Home Office 2002-2020), anecdotal reports indicate positive attitudes in relation to the affordances of aids in interviews. Systematic empirical research in this area would bridge the gap between the micro analysis of CA and a wider macro socio-legal analysis of unaddressed ratified over-hearers whose experiences and perceptions matter in the administration and delivery of justice, and would therefore be a next step in research.

7.4.3 Expressive ability of WLDs

A formal analysis of WLDs' communicative utterances was not part of the research

design and therefore not conducted. It is likely that two of the WLDs (interviews 1 and 7) were expressively less able than the rest. This inference was made based on their reduced ability to formulate a range of diverse and novel spoken and aided constructions. Further research focusing on whether the ability to maximise the potential of aids in evidence giving is impacted by the degree of a WLD's expressive difficulties, would be operationally useful to RIs. A further area of practical relevance is research on whether one type of aid is more likely to benefit over another and would therefore be recommended to be used as a first port of call.

7.5 Concluding thoughts

This thesis has consistently demonstrated that low technology aids when introduced by RIs in ABE interviews have improved the quality of evidence elicited by WLDs. This quality improvement occurred not only in episodes of repair, within insert sequences and post-sequence expansions, but more frequently in episodes of PI, which ocurred within pre-sequence expansions. Repair, although interactionally useful because it targeted resolution of some trouble was argued to be less efficient than PI because in PI, the interactional and institutional goals were aligned. This goal alignment, together with an absence of interactionally needing to target a breakdown, arguably made this unique type of aided interaction more fluent and consequently was likely to be perceived as more effective in accomplishing the institutional goal of eliciting information.

Interactionally, aids assisted in establishing common ground by setting the context for interview talk, initiating and/or maintaining intersubjectivity, thereby enabling WLDs to answer an investigation relevant question, improving the quality of their evidence.

When used in repair, aids were recruited to further emphasise a more specific speech-only repair initiator device thereby increasing the specificity of talk. Progressivity of the interview, together with RIs' continual assessments of WLDs' prior responses determined the choice of aided repair techniques, all of which accomplished more complete, coherent and accurate responses.

Furthermore, they served as tools for talk and when recruited by WLDs as resources to provide their answers, they either replaced or augmented speech. Both of these purposes contributed towards improving the quality of evidence. When aids were used to provide answers, they were used at times, as resources to answer option-posing questions and on other occassions, in instruction-giving, which served the communicative function of open questions, thus eliminating the need to use linguistically complex constructions.

The practice of using instructions to answer complex questions is novel and previously undescribed. RI or IO-initiated instructions generated information on complex happenings in response to "what happened?", positional information in answer to the question "what position?" and temporal information in answer to the question "when?" Rather than disempowering LD recipients as has been found elsewhere (Antaki et al 2007), instruction giving was recruited in such a way that it empowered WLDs to provide their unbiased and unique account.

Design of talk in multimodality interactions was dependent on and shaped by the affordances of aids as oriented to by the participants and the manner in which they recruited them. These affordances were made relevant by increasingly specific embodied actions employed by all participants. Aided communication is a jointly accomplished enterprise. RIs were involved in architecting WLDs' animations in answering investigation relevant questions however this was accomplished in an unbiased, unleading manner so that the author of those animations was solely the WLD. Aids enabled WLDs to provide complete, coherent and accurate evidence in a manner that matched their preferred communication method.

Individuals with an LD have thus been given a 'voice' where formerly their ability to provide full accounts in investigative interviews had been called in to question (Sanders et al 1996; Interdepartmental Working Group 1998; Emerson et al 2011; Douglas and Cuskelly 2012). This thesis has succeeded in demonstrating that communication aid use impacted the quality of evidence elicited from WLDs and that impact was to overwhelmingly improve it. It has also demonstrated that aids when recruited as semiotic resources were integral and central to effective communication with WLDs. It has provided suggestions for future research, which would extend our knowledge base in this under-researched area.

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APPENDICES

Appendix 1

Transcription conventions used for talk

•	A full stop denotes a micro pause
(0.5)	Denotes a timed pause in 0.5 second intervals.
[Square brackets denote a point where overlapping speech occurs.
> <	Arrows surrounding talk show that the pace of the speech has quickened
< >	Arrows in this direction denote the pace of the speech has slowed down
(XXX)	Denotes that the words spoken were too unclear to transcribe
°talk°	Indicates quiet or whispered speech
↑	Upward arrow denotes a rise in intonation
\downarrow	Downward arrow denotes a drop in intonation
bold	Denotes that something was said loudly/shouted
=	Denotes latched speech, a continuation of talk
::	Denotes elongated speech, a stretched sound
~ talk ~	Denotes speech while crying

Conventions for multimodal transcription

- * * Descriptions of embodied actions are written between these symbols.
 These symbols represent physical embodied actions of a WLD.
- + + Descriptions written between these symbols represent embodied physical actions of an IO.

- *----> The physical action (e.g. by WLD) continues across subsequent lines
- ---->* Physical action (e.g. by WLD) ends at the point where the same symbol appears again.
- *.....* Preparation of that physical action, here a WLD's action
- *----* Action's apex is reached and maintained.
- *,,,,,* Action's retraction, e.g. retraction of WLD's physical action
- wld Participant doing the embodied action, here the witness with a Learning Disability
- # # Representation of a visual aid is contained within these symbols

Specific conventions relating to communication aids

- wld^ADenotes some manner of aid use by witnessio^ADenotes some manner of aid use by the interviewing officer
- ri^A Denotes some manner of aid use by the Registered Intermediary

Appendix 2

Proposal Form A: Fast track approval⁵⁶

This form is only to be used where the research being undertaken does not involve vulnerable participants or deception, but does involve information from or about living people that is not already in the public domain.

Submitted by: Staff UG PG (Masters) PG (MPhil or PhD) (Select/circle as appropriate)

Date: 01-04-16

Researcher's Name: Tina Pereira

Principal Investigator/Supervisor if different: Michelle Aldridge

Project Title: Impact of Alternative and Augmentative Communication aids on police interviews with Witnesses with a Learning Disability

Proposed dates of research: September 2015 to August 2022

Reasons for choosing Fast track route (please tick):

	Tick
I have completed the checklist, with no issues arising.	
I will be gathering personal data about individuals (e.g. names, contact	
details, biographical or educational information, or other personal	
information) that needs to be held securely.	
I will be gathering opinions, or making observations or measurements of	~
individuals' behaviour.	
My participants are over 18 years of age.	~
My participants are not members of a vulnerable group or temporarily in a	
vulnerable situation. My participants are members of a vulnerable group	
however all data will be anonymised before taking away from police	
premises on an encrypted memory stick. I will not be interacting with live	
data.	
All the participants will sign a consent form.	
All the participants will receive a debriefing document.	
My procedures will fully comply with the information given in the consent	
and debriefing documents.	
Students and research assistants: I have fully discussed this project and this	<
application with my supervisor/the Principal Investigator	
My research does not involve the collection of human tissue	<
My research does not involve the use of a drug	
Other:	•
The data that I collect from the police will be anonymised before storing	
on my encrypted memory stick. It will not be possible to trace anyone from	
the data on my stick when I leave police premises.	
I would like to discuss aspects of this research with a member of the Ethics	
Committee. Please indicate the focus of this discussion:	

⁵⁶ This form is available electronically via the Research folder on the ENCAP Shared drive.

No. I am a qualified speech and language therapist and a member of the Royal College of Speech and Language Therapists as well as the Health and Care Professions Council. I previously worked in the NHS for many years and I processed and handled patient (as a clinician) and staff (as an SLT team manager) data confidentially. I am a Registered Intermediary with the Ministry of Justice and am fully aware of all ethics considerations for myself and others.

Brief description of the research:

1. Aim, hypothesis

A critical evaluation of the role of the intermediary and Augmentative and Alternative Communication (AAC) in police investigative interviews with witnesses with a Learning Disability (LD)

This study evaluates the use of AAC (i.e. communication aids) in police Achieving Best Evidence investigative interviews with adult witnesses with a Learning Disability in England and Wales, through an analysis of repairs within a Conversational Analysis framework (Sacks et al 1974, Schegloff 1977 and 1992, Sidnell 2010, ten Have 2007, Hayashi et al 2013). These repairs could either be due to an actual conversational breakdown or mis-communication or an anticipated breakdown, where the police or Registered Intermediary anticipate that there will be a breakdown if AAC is not used. AAC is a term used to describe communication methods (e.g. 'small world' furniture, wooden puppets, drawing, photos, pictures or high tech aids such as electronic devices) used to supplement, enhance or replace spoken or written language in individuals with speech, language and communication disorders. AAC is generally introduced in to ABE interviews by the Registered Intermediary (RI).

Many RIs believe that AAC enhances the quality of a witness' evidence (Registered Intermediary Online forum, 14-03-16) but there is limited research carried out to date on evaluating the effectiveness of these aids in actual ABE interviews. To the best of our knowledge, there have been no published studies that have focussed on the impact communication aids have on quality of evidence in real cases and this research aims to fill this gap.

Typically communication aids are used to repair a miscommunication in ABE interviews. Increasingly they are being used before a misunderstanding occurs i.e. they are being used to enable an uninterrupted flow of conversation in situations where a miscommunication is predicted. This actual repair as well as 'expected or anticipated repair' can be initiated by either the witness or the interviewing officer but frequently it is the RI who initiates the repair. Repair takes place because there has been a problem with the witness understanding the officer's question or some trouble with the officer understanding the witness' communication.

There has been some research carried out on how people with a Learning Disability (LD) use repair strategies (Donahue et al 1980) in general conversation. Further research is needed to look at repair specifically in this type of interaction i.e.

between a witness with an LD and an investigating officer in an investigative interview. It will be useful and of practical importance to investigate whether the information gained during an interview improves when AAC is used.

My <u>research questions</u> are:

- 1. Quality of repair
 - a. To what extent does the use of communication aids/AAC change the quality of responses of witnesses with a Learning Disability in police investigative interviews?
 - b. To what extent is the use of communication aids useful in completing the repair successfully in previously unsuccessful repair initiatives without the use of AAC?
- 2. Is there a correlation between different types of communication aids/AAC and witnesses with different developmental levels? i.e. Are some types of AAC better for witnesses with certain levels of cognitive levels?

I would like to analyse visually recorded interviews of police interviewing:

- witnesses with a LD where communication aids have been used
- witnesses with a LD where communication aids have not been used and

Only data from cold cases will be used; no 'live' cases will be used.

2. Basic method

- 1. I will view actual ABE visual recordings and make detailed linguistic transcripts of the interviews of cold cases at a police site belonging to the Police. All transcriptions will be carried out on police premises. All data will be anonymised on site. The anonymised transcripts will be stored and taken away on an encrypted memory stick. No person identifiable data will be removed from police premises or stored at Cardiff University or elsewhere.
- 2. I will carry out a pilot study initially and results of that study will inform the rating scale and analysis used in the main study. This will comprise:
 - 1 ABE interview with witness with LD using AAC
 - 1 ABE interview with witness with LD without AAC
- 3. Data in the main study will be analysed using mixed methods as follows. a. <u>Qualitative methods</u>:

I will use a Conversational Analysis framework (Hayashi et al 2013, Schegloff 1992, Ekberg 2012) to look specifically at instances of repair i.e. when a misunderstanding or conversational breakdown results in one party trying to 'repair' this problem. I will analyse the patterns of repair in the LD population in the context of an investigative interview and hope to identify to what degree a witness' quality of evidence changes with varying types of AAC. I am currently looking into the use of commercial software e.g. Nvivo.

b. <u>Quantitative methods</u>:

I will analyse the quality of response following repair using a graded numerical rating scale of 0 - 2 so that quality of evidence is analysed in terms of its coherence, accuracy and completeness. In this study using a 0 - 1 - 2 scoring

system, repair response descriptors may be amended and refined following my pilot study, but initially responses will be graded as below:

0 - Unable to communicate message and repair **not attempted**

1 - repair attempted but results in an **incomplete** repair

2 - repair complete, message understood by recipient

Specific identified criteria for 'complete' and 'incomplete' will be used to analyse the data.

3. Type(s) of information that will be obtained, incl format.

Linguistic transcripts of all verbal and non-verbal communication between the interviewing officer, the witness and the intermediary. The transcriptions will be in English using Gail Jefferson's set of conventions for Conversational Analysis. These transcripts will be stored as documents in Word and as pdfs on an encrypted memory stick.

4. If you are using an existing dataset, briefly explain its origin and how ethics issues (might) apply.

I will be creating an ABE corpus as described above which I will be working from.

Be prepared to supply, if requested, a copy of:

- the checklist
- the consent form
- the debriefing document
- examples of the materials being used (e.g. questionnaire, stimuli)

Appendix 3

Proposal Form A: Fast track approval⁵⁷

This form is only to be used where the research being undertaken does not involve vulnerable participants or deception, but does involve information from or about living people that is not already in the public domain.

Submitted by: Staff UG PG (Masters) PG (MPhil or PhD) (Select/circle as appropriate)

Date: 01-03-19

Researcher's Name: Tina Pereira

Principal Investigator/Supervisor if different: Michelle Aldridge AldridgeM@cardiff.ac.uk

Project Title: Questionnaire to Registered Intermediaries, Questionnaire to police officers

Proposed dates of research: To start asap, complete analysis within 4 weeks

Reasons for choosing Fast track route (please tick):

	Tick
I have completed the checklist, with no issues arising.	~
I will be gathering personal data about individuals (e.g. names, contact	
details, biographical or educational information, or other personal	
information) that needs to be held securely.	
I will be gathering opinions, or making observations or measurements of	~
individuals' behaviour.	
My participants are over 18 years of age.	~
My participants are not members of a vulnerable group or temporarily in a	~
vulnerable situation.	
All the participants will sign a consent form.	✔ *
All the participants will receive a debriefing document.	✔ *
My procedures will fully comply with the information given in the consent	~
and debriefing documents.	
Students and research assistants: I have fully discussed this project and	•
this application with my supervisor/the Principal Investigator	
My research does not involve the collection of human tissue	~
Other:	
* Participants will tick a box giving consent on the online survey. Their	
debriefing will also be contained on the online survey.	
I would like to discuss aspects of this research with a member of the	
Ethics Committee. Please indicate the focus of this discussion:	

⁵⁷ This form is available electronically via the Research folder on the ENCAP Shared drive.

Brief description of the research:

1. Aim, hypothesis

To analyse participants' (police interviewing officers and Registered Intermediaries) views on their use of low technology' communication aids with witnesses with a Learning Disability in police investigative interviews.

2. Basic method

I received Ethics approval from CU in 2016 in relation to transcribing video recorded police interviews for my PhD which looks at a change in quality of evidence when communication aids are used in investigative interviews of witnesses with a Learning Disability. A Confidentiality Agreement was signed by CU and Police and 7 interviews were transcribed on police premises. I will email my police contact to ask for consent to email interviewing officers giving them a link and a password to access an online survey. This survey focusses on their perceptions of the usefulness of communication aids in interviews.

In relation to Registered Intermediaries (RI), since RIs are independent practitioners, I will email them directly to ask them to participate in an online survey. They will be given a password and a link to the online survey. I am an RI myself and will therefore be able to email relevant colleagues directly.

The questions will focus on the use and success (or otherwise) of communication aids. There will be no questions relating to the interviewers', RIs' or a witness' performance.

The results of both questionnaires will be analysed and inform my PhD results.

3. Type(s) of information that will be obtained, incl format.

The questionnaire is a combination of selection options and free text boxes. Information to be collected relates to the following topics:

- the kind of information communication aids assist with obtaining
- circumstances when aids are not used, with reasons
- details on information or aspect of the interview that is lost when aids are used
- whether it is possible for interviewing officers to use aids without assistance from RIs
- whether aids have ever failed
- when aids work most effectively

4. If you are using an existing dataset, briefly explain its origin and how ethics issues (might) apply.

Be prepared to supply, if requested, a copy of:the checklist

- the checklist
- the consent form
- the debriefing document
- examples of the materials being used (e.g. questionnaire, stimuli)

Appendix 4

ONLINE QUESTIONNAIRE

Interviewing officers' and Registered Intermediaries' views on using communication aids with witnesses with a Learning Disability

Page 1: Information to participants

Dear Police officer or Registered Intermediary participant,

I am investigating interviewing officers' and RIs' perceptions of using low technology communication aids (e.g. drawing on post-its, puppets, writing timelines etc) in ABE interviews with WLDs as part of my PhD thesis with Cardiff University. All questions relate to interviews where the WLDs with an LD used low technology communication aids with interviewing officers and RIs. There will be no questions relating to the interviewers', RIs' or a WLDs' performance.

I may use the results of this survey in future papers or presentations. I will keep the results of this survey for 3 years i.e. till end September 2022.

I will not be collecting any person-identifiable data, therefore please do not include your name, the names of witnesses or Force details. Please do not provide any information that could be used to identify officers, registered intermediaries or witnesses.

Please read the wording on the consent before starting and tick the box asking for consent. There is a debriefing document that can be downloaded at the end of the survey. Thank you for participating.

I understand that my participation in this project involves completing an online questionnaire of low technology communication aid use with witnesses with a Learning Disability in ABE interviews.

- I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time without giving a reason. The questionnaire should not take longer than 15 minutes to complete.
- I understand that I am free to ask any questions at any time. If for any reason I experience discomfort during participation in this project, I am free to withdraw or discuss my concerns with Tina Pereira.
- I understand that the information provided by me will be held totally anonymously, so that it is impossible to trace this information back to me individually. The information will be retained for up to 3 years, after when it will be deleted/destroyed (i.e. till end Sept 2022).
- I understand that information provided by me for this study, including my own words, may be used in the research report, but that all such information and/or quotes will be anonymised.

- I also understand that at the end of the study I will be provided with additional information and feedback if I contact Tina Pereira.
- 1I have read the above and consent to my answers being used by TinaPereira in her PhD and future papers
 Required

O Yes	
1.a I am one of the followi	ng:
O Interviewing officer	© Registered Intermediary
Page 22. In your general experaids in interview, and	ience when witnesses use communication aids e these aids used:
Instead of speech (i.e. completely replaced the word most witnesses would have said with speech)	 As well as speech (i.e. Used speech and communication aids Together to communicate Something specific about the question) Sometimes instead of and other times as well as speech
3. Whatkindof information	ondo these aids typically assist with obtaining?
About people involved. (e.g witness, suspect etc)	About places (e.g. where the allegation took place etc) About physical things or objects involved in the allegation
About positions of people or things	About actions of people (e.g. witness, suspect, others)
About describing people or emotions	About quantities (e.g. Anything else Number of times something

3.a Please explain what other information they provided.

happened etc)

4. In your general experience, doyou think communication aids provide more information about the investigation when they are used?

O Yes	C No

Page 3

5 In your general experience, how often are communication interview, even though a witness with an LD could benefit?

O Never	C Rarely (1-2 interviews)	O Often	(several interviews)
• All the time (every interv	view)		

6. If communication aids are not always used, what are the reasons for this when interviewing a witness with an LD?

o Interviewing officer	$_{\odot}$ Registered Intermediary $_{\odot}$ Witness related reasons
related reasons	related reasons

 $^{\rm O}$ Other reason

6.a InterviewingOfficer related reasons



6.b Registered Intermediary related



6.c Witness related reasons



6.d Other

7. Is any information or aspect of an interview lost when aids are used compared to speech-only interviews?

7.a If you agree, please state what type of information is lost.



Page 4

8. Do you think it is possible for interviewing officers to use communication without advice from RIs?

Ο	Yes
\odot	No

(8.a) If you agree, what kind of communication aids and when can they be used?

8.b If you disagree, please explain your reasons.

9. In your general experience, have communication aids ever failed to assist?

○ Yes ○ No

9.a If yes, what are the circumstances that make it more likely that aids will failto assist?

(9.b) In your experience, what do IOs or RIs do in these situations?

10. In your experience, in which of the following situations do you think aids work effectively?

- ^O When miscommunications occur mid-interview and aids are used spontaneously.
- ^O When communication aid use is planned before the interview starts.
- ^O Neither situation is more effective than the other.

11. Do you have any other comments in relation to using communication aids with witnesses with an LD?



Page 5: Final page

Thank you for completing this survey. If you are interested in knowing the results of this survey, please let me know at <u>PereiraTM@cardiff.ac.uk</u>

Please click on the following link in order to access the debriefing document in relation to this questionnaire.

https://static.onlinesurveys.ac.uk/media/account/3/survey/451168/question/deb riefing_doc_tina_pereira_ph.docx

Debriefing Document

Low technology communication aids in ABE interviews - Police officers' and RIs' perceptions of their usefulness

Thank you for taking part in this study.

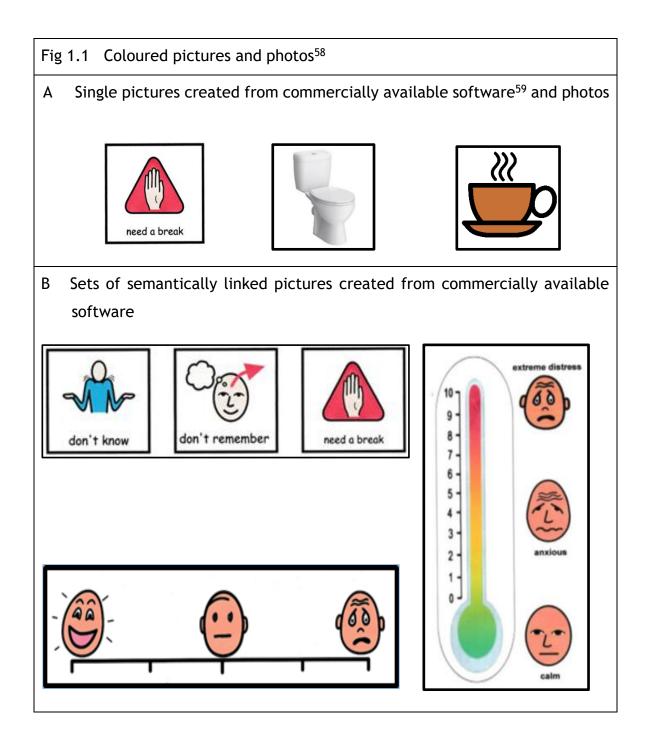
The aim of this research was to investigating interviewing officers' and Registered Intermediaries' perceptions of using low technology communication aids (e.g. drawing on post-its, puppets, writing timelines etc) in ABE interviews with witnesses with a Learning Disability (LD) as part of my PhD thesis with Cardiff University. All participants in this survey completed an online questionnaire relating to their views on the usefulness of low technology communication aid use in eliciting best evidence. I am hoping that participants agree that communication aids can improve the quality of evidence when used appropriately and by trained colleagues.

In order to ensure all participants have the same experience during data collection, please do not discuss what you did in this study with anyone who is participating in the study but has not made their contribution.

The data you have provided are entirely anonymous, which means nothing can be traced back to you, even by the researchers. For this reason, you will not be able to withdraw your contribution retrospectively.

If you have any questions about this study or your participation in it, please contact Tina Pereira at <u>PereiraTM@cardiff.ac.uk</u> My supervisor is Michelle Aldridge and she can be contacted at <u>AldridgeM@cardiff.ac.uk</u>

Appendix 5 Examples of low technology aids used in ABE interviews



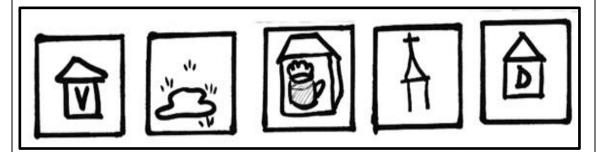
⁵⁸ It is not being asserted that all WLD can use all of these aids in every situation. These examples are simply a selection of the types of aids that have been used.

⁵⁹ This researcher has a license to use Widgit software which is the commercially available software programme used to create these images.

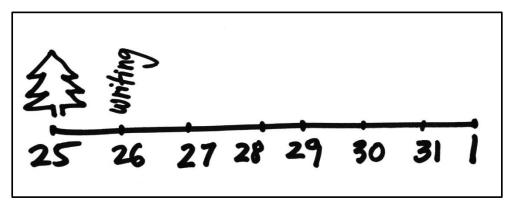
Fig 1.2 Timelines

Examples of communication aids created using hand drawn line drawings and writing, each of which relates to specific people and events.

a. Pictorial



b. Graphic: Combining words and numbers



c. Different coloured post-it notes, combining events (yellow) and the dates on which they occurred (orange)

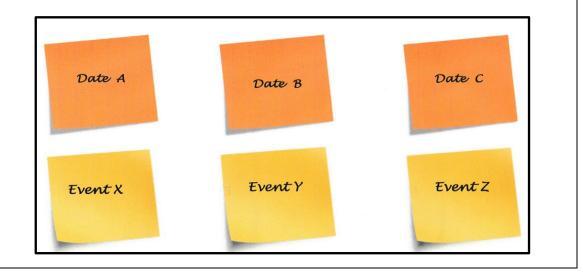
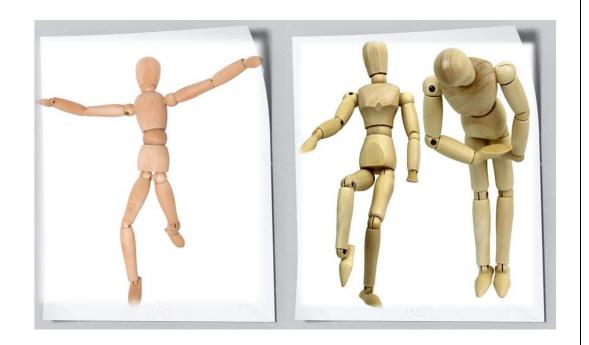


Fig 1.3

a. Wooden mannequins frequently used to represent participants such as a WLD and/or a suspect in an investigation.



b. Miniature furniture used as communication aids.



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Appendix 6A Breakdowns, repairs and Planned Intervention

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Appendix 6B Breakdowns and initiation of re	epair
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Break- down	Planned Intervn (PI)	Augme nt	Replace	Break- down WLD	Break- down IO	Break- down RI	Initiate Repair WLD	Initiate Repair IO	Initiate Repair RI	Speech Repair WLD	Speech Repair IO	Speech Repair RI	Aided repair WLD	Aided repair IO	Aided repair RI
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34		1		1			1					1	
35				1			1		1				
36				1			1		1				
37		1		1			1					1	
	22	1											
	23	1											
38				1				1	1				
39		1		1				1				1	
40					1		1			1			
	24	1											
	25		1										
	26	1											
41			1	1			1					1	
Interviev	w 2												
42				1			1				1		
43				1			1		1				
44					1	1				1			
45				1			1		1				
46				1			1		1				
47				1			1		1				
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49				1				1			1		
50				1			1		1				
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55		1		1			1	1		1					
56				1				1		1					
57					1		1			1					
58				1				1		1					
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60			1	1				1					1		
	27	1													
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68				1				1		1					
69				1				1		1					
70					1			1							
71				1				1		1					
72					1			1			1				
	31	1													
	32	1													
73		1		1				1					1		
74		1			1			1						1	
75				1				1		1					
76					1			1							
77					1										
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78				1				1		1				
70		1		1					1	•			1	
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Interviev	w S							4						
80				1				1		1				
81		1		1					1				1	
82					1			1			1			
	33	1												
	34	1												
83				1				1		1				
84				1				1		1				
85				1				1		1				
86		1		1				1					1	
	35	1												
	36	1												
	37	1												
	38	1												
87				1				1		1				
88				1				1		1				
89				1				1		1				
90					1		1				1			
Interviev	w 4	•	1	1	1	•				1				
	39	1												
	40	1												
	41	1				1								
91		· ·		1				1		1				
92				1				1		1				
93				1			1			1				
94		1		1				1					1	
95				1				1		1				
/5	1	1	l		1	1	L	•			L	L	L	

96				1				1		1					
70	42		1					-							
	43		1												
	44		1												
	45		1												
97	10	1	· ·	1					1				1		
98			1	1					1				1		
	46		1												
Intervie		•													
99		1		1				1					1		
100					1			1			1				
101				1				1		1					
102				1				1		1					
103				1				1			1				
104				1				1		1					
105				1				1			1				
106					1		1				1				
107				1				1		1					
108					1				1			1			
Intervie	w 6	T			1	1	1	1		P	1	1	1	1	
109				1				1		1					
110					1		1				1				
111				1					1	1					
112				1					1	1					
113					1		1								
	47	1													
114				1				1		1					
	48	1													
115		1		1					1				1		

116					1		1			1				
	49		1											
117				1			1		1					
Interview	N 7									•			•	
	50	1												
	51	1												
	52	1												
	53	1												
	54	1												
118		1		1				1				1		
	55	1												
119				1		1			1					
	56	1												
	57	1												
	58	1												
120				1				1						
	59	1												
	60	1												
	61	1												
	62	1												
	63	1												
	64	1												
	65	1												
121		1		1				1				1		
	66	1												
122		1		1			1					1		
123				1				1	1					
124					1									
125				1		1					1			

	67	1													
126				1											
	68	1													
127				1				1		1					
128					1			1			1				
	69	1													
	70	1													
129					1										
130				1				1		1					
	71	1													
131		1		1					1				1		
	72	1													
132				1				1		1					
	73		1												
	74		1												
	75		1												
	76		1												
	77														
133			1	1					1				1		
134		1		1				1					1		
135				1				1				1			
	78	1													
	79	1													
TOTAL		87	26	107	28	0	14	90	26	65	17	8	31	4	0

WLD generated trouble										
	Initiate Repair WLD	Initiate Repair IO	Initiate Repair RI							
WLD Rep speech	5	54	5							
IO rep speech	0	3	0							
RI rep speech	1	3	3							
WLD rep AIDS	1	17	13							
IO rep AIDS	0	0	0							
RI rep AIDS	0	0	0							
Aided SISR	1	Speech SISR	5							
Aided OISR	30	Speech OISR	59							
Aided SIOR	0	Speech SIOR	1							
Aided OIOR	0	Speech OIOR	9							
Aided fail	1									
Total	32									

IO generated trouble											
	Initiate Repair WLD	Initiate Repair IO	Initiate Repair RI								
WLD Rep speech	1	0	0								
IO rep speech	5	8	1								
RI rep speech	0	0	1								
WLD rep AIDS	0	0	0								
IO rep AIDS	0	2	2								
RI rep AIDS	0	0	0								
Aided SISR	2	Speech SISR	8								
Aided OISR	2	Speech OISR	6								
Aided SIOR	0	Speech SIOR	0								
Aided OIOR	0	Speech OIOR	2								
Aided fail	0										
Total	4										

R	l generate	d trouble	
	Initiate Repair WLD	Initiate Repair IO	Initiate Repair RI
WLD Rep speech	0	0	0
IO rep speech	0	0	0
RI rep speech	0	0	0
WLD rep AIDS	0	0	0
IO rep AIDS	0	0	0
RI rep AIDS	0	0	0
Aided SISR	0	Speech SISR	0
Aided OISR	0	Speech OISR	0
Aided SIOR	0	Speech SIOR	0
Aided OIOR	0	Speech OIOR	0
Aided fail	0		
Total	0		

Break- down	Planned Intrvn (PI)	Repair Aids	OISR insertion seq aid	OISR post seq expn aid	PI success	Bio- graphical	Geog- raphical	Material	Assess- ment	Position	Multipart happen- ings	Temporal
Interview	1											
1												
2												
3												
4												
5												
6		1	1						1			
	1				1			1				
	2				1				1			
	3				1				1			
	4				1			1				
7												
8												
9		1		1					1			
10												
11		1		1			1					
12		1	1								1	
13												
14		1		1			1					
15		1					1					
	5				1						1	
16		1		1							1	
17		1		1		1						
18												

Appendix 6C Breakdowns, PI and type of information elicited

19		1		1			1			
20										
21										
	6				1				1	
	7				1	1				
	8				1				1	
22										
	9				1		1			
	10				1		1			
23		1		1					1	
	11				1		1			
24										
25										
	12				1		1			
26		1	1						1	
	13				1				1	
27		1		1					1	
	14				1				1	
	15				1			1		
28		1	1						1	
	16				1			1		
29		1					1			
	17				1				1	
	18				1			1		
	19				1			1		
	20				1			1		
30										
31										
32										

33										
	21				1				1	
34		1		1					1	
35										
36										
37		1		1					1	
	22				1				1	
	23				1				1	
38										
39		1		1					1	
40										
	24				1				1	
	25				1	1				
	26				1				1	
41		1	1				1			
Interview 2	2									
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
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56											
57											
58											
59											
60		1		1			1				
	27				1		1				
	28				1				1		
61											
62											
63											
	29				1	1					
64											
	30				1			1			
65											
66											
67											
68											
69											
70 71											
72											
	31				1					1	
	32				1					1	
73		1	1							1	
74		1					1				
75											
76											
77											
		1								1	

78								
79		1	1				1	
Interview	3							
80								
81		1	1					1
82								
	33			1				1
	34			1				1
83								
84								
85								
86		1	1					1
	35			1				1
	36			1			1	
	37			1			1	
	38			1			1	
87								
88								
89								
90								
Interview 4								
	39			1				
	40			1				1
	41			1				1
91								1
92								
93								
94		1	1				1	ļ
95								

96												
	42				1					1		
	43				1					1		
	44				1						1	
	45				1					1		
97		1		1					1			
98		1		1				1				
	46				1			1				
Interview		I	1			I	I				I	I
99		1	1							1		
100												
101												
102												
103												
104												
105												
106												
107												
108												
Interview	6											
109												
110												
111												
112												
113												
	47				1					1		
114												
	48				1						1	
115		1	1								1	

116										
	49				1				1	
117										
Interview	7									
	50				1			1		
	51				1				1	
	52				1				1	
	53				1				1	
	54				1			1		
118		1		1		1				
	55				1				1	
119										
	56				1			1		
	57				1				1	
	58				1				1	
120										
	59				1	1				
	60				1				1	
	61				1				1	
	62				1				1	
	63				1			1		
	64				1				1	
	65				1		1			
121		1		1		1				
	66				1	1				
122		1	1						 1	
123										
124										
125										

	67				1			1				
126												
	68				1				1			
127												
128												
	69				1						1	
	70				1						1	
129												
130												
	71				1						1	
131		1	1			1						
	72				1		1					
132												
	73				1					1		
	74				1					1		
	75				1					1		
	76				1						1	
	77											
133		1		1						1		
134		1		1				1				
135												
	78				1					1		
	79				1	1						
TOTAL		35	10	22	78	7	8	16	11	16	47	8