A Critical Evaluation of the Usefulness of Criteria-Based Content Analysis for Judging the Credibility of Public Appeals for Missing Persons

by

Rebecca Jagodziński

A thesis submitted in partial fulfilment for the requirements for the degree of
MA (by Research) at the University of Central Lancashire

February 2018

Rebecca Jagodziński

STUDENT DECLARATION FORM

Concurrent registration for two or more academic awards

Either   *I declare that while registered as a candidate for the research degree, I have not been a registered candidate or enrolled student for another award of the University or other academic or professional institution

or   ~~*I declare that while registered for the research degree, I was with the University's specific permission, a *registered candidate/*enrolled student for the following award:~~

Material submitted for another award

Either   *****I declare that no material contained in the thesis has been used in any other submission for an academic award and is solely my own work

or   ~~*I declare that the following material contained in the thesis formed part of a submission for the award of~~

Collaboration

Where a candidate's research programme is part of a collaborative project, the thesis must indicate in addition clearly the candidate's individual contribution and the extent of the collaboration. Please state below:

Signature of Candidate

Type of Award   MA by Research

School   School of Psychology

Rebecca Jagodziński

ABSTRACT

In criminal cases, the contradictory witness statements of an alleged victim and perpetrator(s) may be the only evidence available to the authorities. The current work investigated the usefulness of Criteria Based Content Analysis (CBCA), a credibility assessment or "truth detection" tool. Although CBCA was specifically designed for child witness statements in sexual abuse cases, it has since been argued that the method is effective when applied: i) to the statements of adults, ii) to statements unrelated to sexual abuse, and iii) as a method of lie detection. The current work intended to investigate these claims by applying both the original credibility criteria and an adapted version to adults' statements from public appeals for missing people. Given the previous research emphasis on psychological and social psychological perspectives, however, the research brought to bear insights from broadly conceived discourse analytic methodology, utilising concepts from Gricean Pragmatics and Interactional Sociolinguistics. The results indicate that both sets of criteria are not suitable for use on this type of data. In particular, the efficacy of many credibility-related content characteristics is reduced when applied to public appeals, given that: i) the context of statement production differs from an interview about sexual abuse; ii) speakers produce their statements for a different purpose; and iii) crime victimisation narratives were absent in the majority of the public appeals in this dataset, rendering many criteria diagnostically irrelevant. The findings have important implications for the use of credibility criteria outside of the context for which they were designed. In real-life, high-stakes criminal cases, the development of more context-sensitive methods of deception detection and credibility assessment is recommended.

Rebecca Jagodziński

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

Writing this thesis would not have been possible without the support, understanding, and encouragement of my colleagues, friends, and family.

I would first like to express my most heartfelt thanks to Professor Dawn Archer. Thank you for your invaluable advice and your unwavering confidence, both in my research and in me as a person. I would not be where I am today without you.

I would also like to extend my deepest gratitude to my supervisor, Dr. Beth Richardson, and my Director of Studies, Professor Linden Ball. Thank you for your unending patience, your humour, and your reassurance when I was struggling (which was often).

I am very lucky to have a wonderful and endlessly supportive husband, Dr. Piotr Jagodziński, who also happens to be an extremely talented linguist. Thank you for our long discussions over coffee, for toddler-wrangling so that I could work on my thesis, and for your uncanny ability to remember the exact years and page numbers of important references. Jesteś moim najlepszym przyjacielem, I nigdy nie byłabym w stanie napisać tej pracy bez Ciebie.

Thanks to my mum for putting up with my complaining and pessimism, for always believing in me, and for feeding me vegetables when my student diet degenerated into nothing but beige food.

Last but certainly not least, I would like to thank my two beautiful sons. Blake: even as I complain about how much you argue, I am immensely proud of you and your sharp and inquisitive mind. Never stop asking questions! And to our little Tadeusz: Twój uśmiech gdy wracam do domu sprawia, że ciężka praca ma sens. Every day the two of you inspire to me to work harder, and to be a better person and mother. I am so thankful to have you both.

LIST OF TABLES

CHAPTER 1: INTRODUCTION

1.1 DEFINING DECEPTION

Various definitions of deception have been put forward in the wider literature, and a common denominator among these definitions is the intent to deceive (Miller & Stiff, 1993; Buller & Burgoon, 1996; DePaulo et al., 1996). Vrij (2000: 6), for example, states that deception is "a successful or unsuccessful *deliberate* attempt, without forewarning, to create in another a belief which the communicator considers to be untrue" (emphasis added). Though there are many conceptualisations of deception, Vrij's definition will be applied here, since it is broad enough to encompass various deceptive strategies (such as evasion, deception by omission, and misrepresentation), but narrow enough that non-communicative or unintentional forms of deception (such as self-deception) are excluded.

According to many researchers, deception is ubiquitous in social interaction (Buller and Burgoon, 1994: 191, 1996: 203; Levine, 2014: 96; Vrij, 2000: 2). However, the majority of lies function as a harmless social lubricant, enabling speakers to conceal potentially problematic opinions, attitudes, and beliefs in the interests of preserving personal and professional relationships (DePaulo et al., 1996; Granhag and Strömwell, 2004). These are referred to as "social lies" (Vrij and Ganis, 2014: 304). Given their relatively benign purpose, distinguishing between truth and lies in these contexts is of no great concern (Granhag and Strömwell, 2004: 3-4). In contrast, deception and its detection are of particular importance in forensic contexts, where establishing truthfulness is a necessary part of the legal system and the lies told are often considerably more serious (Vrij, 2000: 1). Professionals in related fields – such as judges, lawyers, police officers, and expert witnesses – are frequently expected to assess the veracity of statements, and the consequences of incorrect judgments can be far-reaching and severe (Inbau, Reid, Buckley, & Jayne, 2001: 121; Vrij, 2004: 159; Granhag and Strömwell, 2004: 4). For this reason, researchers within and across multiple disciplines have developed theoretical frameworks and methodological approaches relating to deception and its detection (Vrij and Ganis, 2014). These contributions are explored in 1.2 and 1.3.

1.2 DECEPTION AND ITS DETECTION: THEORY AND METHOD

Many theoretical frameworks pertaining to deception have emerged from Psychology and its related sub-disciplines (for comprehensive reviews, see Davies and Beech, 2012; Granhag and Strömwall, 2004; Vrij, 2000, 2008, 2015). Within these (sub)disciplines, there are different underlying assumptions about the act of deception. In Psychophysiology, for example, researchers typically assume that the anxiety associated with deceiving can trigger various physiological responses, such as elevated blood pressure (Podlesny and Raskin, 1977; Raskin and Kircher, 2014; ten Brinke, Stimson, and Carney, 2014). Similarly, a key theoretical assumption in Neuroscience is that there are particular neural processes associated with deceptive mental states (Vrij and Ganis, 2014: 345). These neural processes are said to be related to the cognitive complexity of telling lies, memory retrieval, and social cognitive factors relating to the speaker's attempt to deceive (ibid.).

Within Social Psychology, three processes are said to be related to deception: firstly, there are particular emotional states said to correlate with deception, such as fear, guilt, and duping delight (Ekman, 1985). Expressions of these emotional states may emerge in the deceiver's verbal and nonverbal behaviour, in what Ekman (2001: 42) refers to as "leakage". Secondly, attempted control on the part of the deceiver may lead to unnaturally rigid behaviour patterns, or to discrepancies between verbal and non-verbal behaviour (Ekman, 1981, 1985; Zuckerman et al., 1981; Zuckerman, Driver, and Koestner, 1982). Lastly, deception places greater cognitive demands on the speaker than truth-telling, since liars must attempt to fabricate a plausible and coherent story, remain consistent, and control their behaviour to avoid detection; this increased cognitive effort may therefore amplify deception cues (Buller and Burgoon, 1996; DePaulo, 1992; DePaulo et al., 2003; Köhnken, 1989: 275). Despite the fact that deception is primarily a communicative phenomenon, however, there are few examples of theoretical frameworks which originate from the field of Linguistics. Information Manipulation Theory (IMT) is one notable exception: a framework which combines Linguistic Pragmatics with Cognitive Neuroscience, it proposes a theory of deceptive communication which is focused on deceptive message production, rather than on the psychophysiological, neurobiological, or emotional processes associated with lying (McCornack et al., 2014: 348). Further, it recognises that deception may not always be detectable (ibid.). Primarily, however,

language in deception detection and credibility assessment research has been considered from "the vantage point of (Social) Psychology" (Galasiński, 2000: 17).

Research which attempts to bridge the gap between theoretical paradigms and practical applications has found that certain physiological, neural, linguistic, and behavioural features (most often referred to as "cues") are probabilistically related to deception (Vrij and Ganis, 2014). The four most influential approaches to deception detection involve the following:

1) the measurement of physiological responses, such as blood pressure and palmar sweating (Elaad et al., 1992; Honts, 2004; MacLaren, 2001)
2) the measurement of brain activity (Bhatt et al., 2009; Davatzikos et al., 2005)
3) the observation of non-verbal behaviour, such as hand and finger movements, posture, and eye gaze (DePaulo et al., 2003; Granhag and Strömwall, 2002: 243; Vrij, 2008: 89)
4) and the analysis of aspects of speech, such as voice pitch, speech errors, hesitancy, negativity, self-references, inconsistency, and superfluous information (Akehurst et al. 1996; Vrij, 2008; Vrij, Edward and Bull, 2001).

Precisely which cues are most useful in deception detection is still hotly debated among researchers (Vrij and Ganis, 2014), but all of the above approaches focus upon the involuntary "leakage" of cues thought to be related to deceptive mental states (Levine and Kim, 2010: 25). Alternative methodological approaches involve focusing exclusively on signs which indicate *truthfulness* (Rassin, 1999: 273). Practically, this manifests as methods of credibility assessment rather than deception detection. Credibility and its assessment are discussed in 1.3.

1.3 CREDIBILITY AND ITS ASSESSMENT

The terms "deception detection" and "credibility assessment" are often used interchangeably, given that researchers may consider cues associated with both lying and truth-telling within a single study (see, for example, Whelan et al., 2014). However, there

are important theoretical and methodological differences between the two approaches. According to Yuille (1988: vii), "credibility assessment refers to any attempt to ascertain truthfulness". The presence of clusters of credibility features in a person's speech is closely associated with honesty (Gass and Seiter, 2016: 83); methods of assessing credibility therefore typically focus on searching for cues which are said to indicate truthfulness rather than "signs of deceit" (Rassin, 1999: 273). In legal terms, this tends to be related to the concept of *credibility* (Huagaard and Reppucci, 1992: 30). Like deception, credibility has been extensively studied and researched in a variety of fields, including Psychology, Social Psychology, Marketing, Information Science, and Linguistics (Rieh and Danielson, 2007). Though credibility is closely associated with truth – and therefore, by extension, with deception – the terms are not synonymous. O'Keefe (2002: 181) defines credibility as "judgements made by a perceiver (e.g., a message recipient) concerning the believability of a communicator". Importantly, the emphasis on *judgments of believability* in this definition acknowledges that credibility is essentially a "perceptual phenomenon" (Gass and Seiter, 2016: 77), the implications of which will be discussed in more detail in Chapter 2.

Both jurors and legal professionals are expected to assess witness credibility when presented with the conflicting statements of complainants and defendants in criminal investigations and court cases (ten Brinke and Porter, 2013: 222). Consequently, researchers have also attempted to develop systematic methods for evaluating the credibility of witnesses and their statements (Amado et al., 2015: 4; Yuille, 1988: vii). Generally, credibility assessment research focuses more on verbal than non-verbal behaviours (Porter and ten Brinke, 2010: 66). According to Porter and Yuille (1996: 444), verbal cues are particularly relevant in forensic settings such as police interviews where "the only evidence available to the police are the conflicting statements of the complainant and the accused". A particularly popular methodological approach designed to focus exclusively on verbal content features associated with credibility is Statement Validity Analysis (henceforth SVA). SVA, and its core component, Criteria Based Content Analysis (CBCA), are outlined in 1.4.

1.4 STATEMENT VALIDITY ANALYSIS AND CRITERIA-BASED CONTENT ANALYSIS

One of the most popular methods of credibility assessment – SVA – involves the structured analysis of verbal content, and CBCA as its core component has been extensively studied (Vrij, 2015). CBCA was originally designed as the third stage of SVA, and was intended to perform a very specific purpose: namely, to determine the credibility of child witness statements in sexual abuse cases (Soppe, 1995). Subsequently, however, CBCA has been used to assess the verbal characteristics of adult testimony, as well as in cases unrelated to sexual abuse (see Landry & Brigham, 1992; Kohnken et al., 1993; Parker and Brown, 2000). Despite the purpose for which CBCA was designed – namely, to assess *veracity* – it is also frequently applied to the detection of deception. Empirical studies suggest that it significantly increases deception detection accuracy rate and can therefore prove effective "for lie detection purposes" (Vrij and Ganis, 2014: 338; see also Vrij, 2008).

Given that SVA is "currently the most systematically used technique by the courts" (Amado et al., 2014: 4) in European countries such as the Netherlands, Germany, and Sweden, as well as North America (Rassin, 1999; Vrij and Ganis, 2014)[1], determining the efficacy of CBCA as a method is paramount. Extant literature on CBCA is extensive, and the technique is generally considered to be "empirically validated" (Porter and ten Brinke, 2010: 68). It is important to acknowledge, however, that research thus far conducted into the efficacy of CBCA has methodological limitations which have yet to be addressed. Most studies are conducted in a laboratory setting, for example, in which participants' motives to produce credible lies are minimal (Vrij and Ganis, 2014: 339). Field studies, while more realistic, often lack hard evidence, and we cannot therefore ascertain "ground truth" (ibid.) – that is, whether or not the events in question were based in real experience. In addition, verbal content – the focal point of CBCA's assessment – has generally been viewed through the lens of Psychology. Consequently, researchers and CBCA practitioners often lack the resources offered by a linguistic approach, such

---

[1] It is important to note, however, that it is not accepted in all court systems, including the UK, "because it is not, at least yet, considered sufficiently reliable" (Carson, 2007: 125). In addition, Davies (2004:164) notes that "in criminal matters, any form of expert testimony on child witnesses, whether case-specific or didactic, is likely to be excluded on the grounds of infringing the prerogatives of the jury". With regard to civil matters (in which no juries are involved), courts within the UK do permit and take account of expert testimony in "cases involving custody disputes and other matters affecting children" (ibid.).

as appropriate analytical categories which allow hearers to determine "the workings of a deceptive message" (Galasiński, 2000: viii). For the reasons listed above, there are ongoing debates about the efficacy of CBCA, particularly when it is used a) on adults' statements, b) outside of the criminal context for which it was designed, c) in isolation (that is, without the broader framework of SVA), and d) to detect deception (Honts, 1994; Horowitz et al., 1997; Vrij et al., 2000).

Furthermore, according to one of the originators of SVA, CBCA should be considered "a method for the detection of the truth" (Köhnken, 2004: 55) rather than a method of deception detection. Despite this, CBCA is often applied for the purpose of detecting both truth and lies. Recent research by Archer and Lansley (2015) attempted to address the latter issue by "reversing" some of the credibility criteria, so that they *potentially* pointed to deception rather than credibility.[2] Their study raises interesting questions about the efficacy of credibility criteria, both original and adapted, to deception detection and credibility assessment. The current research intends to address the issue of truth versus lie detection, as well as the issues outlined above. Specific research aims and objectives are discussed in 1.5.

1.5 RESEARCH AIMS AND OBJECTIVES

The overarching aim of this research is to investigate the usefulness of CBCA's credibility criteria, as well as the adapted version of CBCA developed by Archer and Lansley (2015), in distinguishing between truth and lies. Following Archer and Lansley (2015), the data to which I apply the criteria is taken from public appeals for missing people. This material is publically available online, on social media sites like YouTube, and/or as part of recent UK documentaries into the topic of deception in press appeals, such as *Tears, Lies and Videotape* (2009). This data is divided into two categories: truthful versus deceptive communication. Following Vrij and Mann (2001) and Whelan et al. (2014), this categorisation is based upon case-specific factors related to legal ground truth, such as admissions of guilt, evidence (whether forensic, medical, or otherwise)

---

[2] This research, and its relevance to the current study, will be discussed in depth in Chapter 2. Its methodology will be outlined in Chapter 4.

which either exonerates or incriminates the speaker, and/or convictions in a court of law. More details in respect to each appeal are given in Chapter 3.

The fact that the data in this research are not artificially produced under experimental conditions affords it an authenticity which is lacking in many other (laboratory-based) studies into CBCA (Vrij, 2015). Statements made as part of the public appeals were produced in real-life, high-stakes criminal cases, which ensures that the motives for successful deception were both present and exceptionally profound (ibid.). Moreover, the problem of establishing "ground truth" (Granhag and Vrij, 2005: 54) is effectively counteracted through the retroactive examination of statements in which legal ground truth has already been established[3]. This will therefore allow for an assessment of the criteria's diagnostic accuracy when applied to this kind of data.

Given that credibility assessment and deception detection more generally are typically viewed through the lens of (Social) Psychology (Galasiński, 2000: 17), however, the current work intends to bring to bear insights from the discipline of Linguistics through adopting a mixed-method discourse analytic approach which draws from (Gricean) Pragmatics and Interactional Sociolinguistics. A qualitative approach will enable a detailed exploration of the relationship between the criteria and the dataset, with the objective of assessing the extent to which the criteria accurately reflect (and therefore measure) statement veracity.

1.6 OUTLINE OF THE THESIS

In Chapter 2 of this thesis, I review extant literature on CBCA as a method of credibility assessment. Specifically, Section 2.1 discusses CBCA in depth, with reference to its origins, underlying hypothesis, diagnostic efficacy on both children's and adults' witness statements, and usage as a method of deception detection. I explore the links between credibility, deception, and impression management in 2.2. In this section, I also consider studies which suggest that individual and contextual factors can affect perceptions of credibility and, more specifically, that CBCA scores can be affected by these self-same

---

[3] It must be acknowledged, however, that *legal* ground truth does not always equate to *actual* ground truth, given that miscarriages of justice can and do occur.

factors. In 2.3, I discuss research in which CBCA has both been combined with other (verbal and non-verbal) methods of deception detection and credibility assessment with a view to enhancing its diagnostic accuracy, including research by Archer and Lansley (2015) in which an adapted version of CBCA criteria are applied to data from public appeals for missing people. In 2.4, I consider other studies into public appeals, and outline the purpose and direction of the current research. Chapter 3 of this thesis outlines my method of data collection, with details of the categorisation process (into truthful and deceptive accounts), issues with the chosen data set, and transcription style. Chapter 4 discusses my methodology, outlining how CBCA and the amended criteria are typically applied, training issues, and the difference between traditional content analysis and a the (discourse analytic) approach adopted here. In Chapter 5, I adopt assess the relationship between the criteria and the data, in terms of i) whether CBCA and the adapted criteria measure, and accurately reflect, statement veracity, and (by extension), ii) whether the criteria can or should be used to assess credibility and/or detect deception on this kind of data. I conclude in Section 6 by providing a summarised account of the key findings of my research. I also address the study's limitations, and briefly discuss potential areas of future research.

CHAPTER 2: LITERATURE REVIEW

2.1 CRITERIA BASED CONTENT ANALYSIS

2.1.1 CBCA: ORIGINS AND UNDERLYING HYPOTHESIS

SVA was developed in Germany (Undeutsch, 1967; Arntzen, 1970) and Sweden (Trankell, 1963) within forensic psychology. Unlike other methods of deception detection which look for "behavioural or physiological correlates of deception" (Köhnken, 2004: 42), SVA focuses on variables associated with truthfulness. A full SVA consists of four stages:

1) the analysis of the case file
2) a semi-structured interview
3) the assessment of the statement's credibility using CBCA, and
4) a validity checklist which considers alternative explanations to the outcome of the CBCA (Köhnken, 2004: 43-4).

It is important to note that CBCA was never intended to be used in isolation, but as the third of four stages of analysis (ibid.). However, many studies examine the efficacy of CBCA in the absence of other SVA stages, arguing that CBCA – as the systematic method by which the statement is evaluated for its credibility – is the most central and standardised component (Granhag and Hartwig, 2012: 156; Rassin, 1999: 268).

The global hypothesis on which CBCA is based was later divided into two components (Köhnken, 1999). The first is a cognitive component; namely, it is argued that deceptive speakers will find it too cognitively demanding to produce statements containing the credibility criteria (Köhnken, 2004: 49). The second component is related to impression management. Impression management[4] is defined as an attempt to regulate one's behaviours in order to present a particular image of oneself to others (Goffman, 1959;

---

[4] Impression management, and its relevance to the current work, will be discussed in more detail in 2.3.

Jones and Pittman, 1982; Baumeister, 1982; Schlenker and Weigold, 1989). This component of the CBCA hypothesis assumes that deceptive speakers rely upon stereotypes about deceptive behaviour, and that they will avoid these behaviours in an attempt to avoid undermining their own credibility (Köhnken, 2004: 49). These hypotheses led to the development of several lists of content features thought to occur more often in truthful than deceptive statements (Undeutsch, 1967; Arntzen, 1970; Littman and Szewczyk, 1983), which were eventually combined by Steller and Köhnken (1989) into the list of nineteen credibility criteria currently used in CBCA[5].

2.1.2 CBCA AND CHILD TESTIMONY

As previously discussed, CBCA was designed with a specific purpose in mind: to evaluate the credibility of child witness statements in sexual abuse cases (Köhnken, 1989; Steller and Köhnken, 1989). It was therefore not originally intended for application to adult testimony, or to criminal investigations unrelated to sexual abuse (Amado et al., 2015: 4). This is reflected in some of the original criteria, such as Criterion 10, *Accurately Reported Details Misunderstood* (Köhnken, 2004: 51). Both field and laboratory studies have been conducted to assess the efficacy of CBCA as a method of credibility assessment on child witness statements.

Initial field studies strongly supported the underlying hypothesis of CBCA in relation to child testimony (Esplin et al., 1988; Parker and Brown, 2000; Raskin and Esplin, 1991; Lamb et al., 1997). For instance, Lamb et al. (1997: 11) assessed the reliability of CBCA on 100 child witness statements in confirmed abused cases, and found that total CBCA scores were reliable "over time and across raters". However, they did note that five criteria were sufficiently unreliable to necessitate either further refinement or their removal from CBCA, and that inter-rater reliability varied (ibid.; see also Anson et al., 1993; Boychuk, 1991). More recently, Roma et al. (2011) included 60 true and 49 false cases in their field study, and found that truthful statements contained significantly more credibility criteria than false accounts. In addition, a meta-analytic review conducted by Amado et al (2015: 3), which included 20 studies (both field and laboratory-based),

---

[5] For an in-depth discussion of how these criteria are coded for analysis, see Appendix 3.

supported the validity of the Undeutsch hypothesis and of the discriminative efficacy of CBCA.

Some researchers point out that CBCA must be able to discriminate not only between truthful and deceptive accounts, but also between accounts based on false memories versus direct experience (Kulkofsky, 2008: 27; Blandón-Gitlin et al., 2009: 903). This is a particularly pertinent issue to consider in child witness statements, given that children are more susceptible to suggestion and are thus more likely to form false memories (for a review, see Bruck and Ceci, 1999; Ceci and Bruck, 1993, 1995). Research by Erdmann et al. (2004) reported that some – although not all – CBCA criteria were useful for discriminating between experienced events and false memories in children. More recently, however, Blandón-Gitlin et al. (2009) investigated the efficacy of CBCA for discriminating between children's accounts of true events and false events believed to be true. It was found that although a limited number of criteria were present, the diagnostic accuracy of CBCA was not significant enough for it to be useful as a forensic tool. In particular, a number of participants "developed especially compelling false memories" (p. 916) which were classified as credible according to their CBCA scores.

2.1.3 CBCA AND ADULT TESTIMONY

Despite the purpose for which SVA – and therefore CBCA – was designed, Köhnken (2004: 42-3) states that "the underlying theoretical framework applies as well to adults as it does to children", and that its usage is not limited to testimony relating to sexual abuse. Indeed, the majority of research conducted into CBCA has involved the use of adult participants (Vrij and Ganis, 2014: 338; see also Vrij, 2008, 2015) in laboratory studies with statements unrelated to sexual abuse (Köhnken et al, 1995; Landry and Brigham, 1992; Ruby and Brigham, 1998; Sporer, 1997; Vrij and Heaven, 1999; Vrij and Mann, 2000; Zaparniuk, Yuille and Taylor, 1995). For example, Akehurst et al. (2001) examined the success of raters using CBCA to judge the veracity of both children's and adults' statements in a laboratory-based experiment. Results showed that CBCA criteria were able to discriminate deceptive from truthful accounts which were based on direct experience (where "direct experience" refers to active participation in an event, rather than, for example, watching an event on video) (p.65). CBCA was also found "to be

equally effective for use with accounts from adults as well as children" (ibid.). In addition, Vrij (2005) conducted a qualitative review of the first 37 studies into CBCA (involving both laboratory and field studies with adult and child participants) and noted that 92% of these studies confirmed the underlying hypothesis of CBCA (namely, that more criteria are present in truthful than deceptive accounts). Furthermore, Criterion 3 (*Number of Details*) received the most support in the literature (ibid.). However, Vrij (2008, 2015) does note that the diagnostic accuracy of CBCA in real-life cases involving adult participants is largely unknown, given that most reviews consider only laboratory-based studies.

Unfortunately, few field studies have been conducted into CBCA which involve adult participants. One notable exception is that by Parker and Brown (2000), who attempted to determine the usefulness of SVA and CBCA assessments in discriminating true and false allegations of rape. CBCA was applied to the statements 43 adult interviewees, and it was found that CBCA scores accurately discriminated between genuine and false statements. However, it was noted that there were "age relevant differences in the reliability and validity of the criteria" (p. 237). For example, it was found that – in comparison to the children in a study by Esplin et al. (1988) – adults tended to "describe events with greater quantity of detail than children, reflecting increased cognitive and verbal fluency with age" (Parker and Brown, 2000: 250). It is important to note, in addition, that this study utilised "soft evidence" (namely, confessions) in order to classify statements as truthful or deceptive. The details and implications of this are discussed in more detail in 2.1.4.

2.1.4 CBCA AND DECEPTION DETECTION

Proponents of CBCA do state that the approach is not a method of deception detection *per se*; rather, it is intended to search for cues related to truthfulness (Köhnken, 2004: 55). Despite this, the diagnostic efficacy of CBCA in detecting both truth *and* lies has been assessed through various laboratory studies. In a review of 24 such studies (involving both adult and child participants), the average accuracy rate for CBCA was 70.81% for detecting truths and 71.12% for detecting lies (Vrij, 2008: 233-5). It is argued that this demonstrates that "CBCA analyses *can be useful for lie detection purposes*"

(Vrij and Ganis, 2014: 338; emphasis mine) for both children and adults. Similarly, Porter and ten Brinke (2010:68) note that "the huge amount of thought and research devoted to CBCA strongly support its current use as *an effective deception detection tool*" (emphasis mine).

However, as highlighted by Vrij (2015:12), it is important to note that the vast majority of research conducted into the efficacy of CBCA as a method of deception detection has been conducted in laboratory studies with experimental designs on "amateur deceivers" (Porter and ten Brinke, 2010:68; see e.g. Akehurst et al., 2001; Ruby & Brigham, 1997; Sporer, 1997; Vrij et al., 2002). A general disadvantage of this research paradigm in deception detection research is that it lacks ecological validity; more specifically, and as noted by Undeutsch (1984) and Trankell (1972), laboratory studies cannot hope to create an accurate picture of the efficacy of CBCA (or of SVA more generally) in criminal investigations. Strong motives for both deceiving and detecting deceit are minimal or absent, for example, which is at odds with the more profound motives typically found in real life, high-stakes criminal cases, such as freedom and/or the possibility of legal sanction (Akehurst et al., 2011: 236; Howitt, 2006: 288). This is sometimes referred to as "the motivational impairment effect" (DePaulo et al., 1988: 177). In addition, many of the participants are undergraduate students, and therefore not representative of the typical criminal in terms of both social class and level of education (Ekman and Frank, 1993; Porter and Yuille, 1996: 454). Furthermore, the lies participants are instructed to tell have no negative real-life consequences, and the substantial motivation present in real criminal cases – freedom – is absent (Vrij, 2004: 162). The three internal processes associated with deceptive mental states – emotion, cognitive load, and behavioural control – are therefore a great deal less profound (Vrij, 2004:163). In line with this, research has consistently demonstrated that high-stakes lies are easier to detect than low-stakes lies (DePaulo et al., 1988; DePaulo et al., 1983; DePaulo, LeMay, & Epstein, 1991; Vrij, 2000) and that motivated liars are easier to catch than unmotivated liars (DePaulo et al, 1992). Despite these findings, studies into CBCA continue to be conducted in laboratory settings.

Whilst more realistic than laboratory studies, field studies which have been conducted into CBCA are also problematic. A key criticism of this methodological approach is that

it is "virtually impossible to check 'ground truth'" (Granhag and Vrij, 2005: 54; see also Vrij, 2015). Namely, researchers often cannot definitively determine which statements were truthful and which were fabricated. In this case, the diagnostic value of CBCA in real-life cases remains unclear (Vrij, 2015: 12). On this basis, Granhag and Hartwig (2012: 156-7) argue that field studies should not be used to assess the diagnostic value of either SVA or CBCA, and that laboratory studies are preferable. In some studies, such as those conducted by Esplin et al. (1988), Craig et al. (1999), and Parker and Brown (2000), researchers use "soft" evidence (confessions, for example) when attempting to establish ground truth (Vrij, 2015:12). Relying upon such evidence in place of independent case facts (such as forensic evidence) lacks robustness, however: a suspect may plead guilty if he or she learns that the alleged victim has given a convincing statement, for instance (Wells and Loftus, 1991: 190; Whelan et al., 2014; 524; Akehurst et al., 2011: 237).

Given the problems highlighted with the supporting research, some researchers have questioned whether CBCA is an appropriate diagnostic tool for deception detection, particularly considering that it was originally designed to identify clusters of credibility features associated with *truth* (Horowitz, 1991; Rassin, 1999). The importance of distinguishing between deception detection and credibility assessment, as well as between credibility and truth, are discussed in 2.1.5.

2.1.5 UNTANGLING DECEPTION, CREDIBILITY, AND TRUTH

Köhnken (2004: 55) specifically states that the absence of credibility criteria does not necessarily indicate that the witness is lying. He outlines the process by which analysts should generate hypotheses about "potential sources or origins of a given statement" (p. 44) when conducting a full SVA. These assumptions do acknowledge the potential influence of personal and/or situational factors: the analyst may postulate, for example, that the statement is partially fabricated, the result of "incorrect transference" (where the witness has experienced the event but accuses the wrong person), a product of suggestion or instruction by others, and/or the result of mental illness (p.45-6). For this reason, as noted in 2.1.4, the original purpose of CBCA is not to detect lies; rather, it is intended for "the detection of the truth" (ibid., p.41). A recent meta-analysis of CBCA studies (Hauch et al., 2017) found that the use of CBCA "summary scores" in isolation decreased the

reliability of the technique, and argued in conclusion that CBCA was never intended to be used as in isolation as a "lie detection tool" (p.829). As noted by the authors (Hauch *et al.*, 2017: 820), "the presence of each CBCA criterion is considered an indicator of the truthfulness of a statement, whereas its absence does not necessarily indicate a lie".

In line with this, Horowitz (1991) argues that CBCA is generally better at detecting truth than lies, and that "when the CBCA does err, it will tend to make false positive errors (calling false statements true)" (p. 295). In some cases, the percentage of "true negative diagnosis" (namely, instances in which a statement is accurately judged to be false on the basis of CBCA criteria) is "lower than chance level" (Rassin, 1999: 267). For instance, Landry and Brigham (1992) and Ruby and Brigham (1997) found that the percentages of true negatives in CBCA studies were as low as 35% and 8%, respectively. This finding can be explained through the concept of "truth bias", defined as "the tendency to believe others whether or not they are telling the truth" (Levine and Kim, 2010:22). Levine et al. (1999: 125) argue that truth bias leads to a phenomenon they refer to as "the veracity effect". Namely, message judges are more likely to correctly identify truthful statements as honest due to truth bias, but make errors when attempting to detect lies; for this reason, they argue, "the single best predictor of detection accuracy may be the veracity of the message being judged" (ibid.). If this is the case, utilising CBCA as a method of detecting *deception* (when its original purpose was the detection of *truth*) is called into question.

In addition, some researchers argue that CBCA not only conflates truth detection and lie detection, it fails to distinguish between truthfulness and credibility (Kulkofsky, 2008:28). The former relates to factual accuracy, whereas the latter refers to the subjective quality of seeming "believable" to others (Levine and Kim, 2010: 22; see also O'Keefe, 2002: 181). As such, credibility is a "*receiver-based construct*" which "exists in the eye of the beholder" (Gass and Seiter, 2016: 77; emphasis original). In relation to CBCA, then, the testimony of a given witness may well be factually inaccurate even though the witness presents a statement which corresponds well with the criteria. Equally, a truthful witness may provide a "low-quality statement" (Vrij, 2015: 14) due to external factors unrelated to deception or truth (examples of such external factors will be explored in more detail in 2.3.3). Discussing the limitations of CBCA with respect to deception

and truth necessitates an exploration of the impression management component of its underlying hypothesis. This is the focus of Section 2.2.

2.2 DECEPTION, CREDIBILITY, AND IMPRESSION MANAGEMENT

2.2.1 LINKING IMPRESSION MANAGEMENT AND CREDIBILITY JUDGEMENTS

The impression management component of CBCA's underlying hypothesis can be challenged by the self-presentational theory of deception. In particular, it is argued that *all* communication – whether verbal or nonverbal – is motivated by self-presentation (Schlenker, 1982; Pontari and Schlenker, 2000; Bond and Speller, 2010). As such, self-presentation is not inherently deceptive, since truthful speakers will attempt to manage others' impressions in much the same way as deceptive speakers do (De Paulo, 1992: 210; see also DePaulo et al., 2003). This is particularly relevant in high-stakes situations, given that truthful speakers are facing the same negative consequences as deceptive speakers if their statements are disbelieved (Vrij and Ganis, 2014: 322). A truthful person may therefore fail to achieve their self-presentational goals in some circumstances, such as "situations which arouse debilitating levels of motivation or emotions" (DePaulo et al., 1992: 212). If this is the case, a truthful person's statement may well lack many of the credibility criteria for reasons unrelated to honesty (Archer and Lansley, 2015: 257). Similarly, deceptive speakers may be capable of managing their communicative behaviour in a way which "[translates] into more precisely tailored, and thereby more effective, self-presentations" (DePaulo et al., 2003: 213).

Research into individual differences in lie detection ability suggests that people often base credibility judgments on a person's demeanour, such that those who are perceived as honest when telling the truth can also be perceived as honest when lying (DePaulo and Rosenthal, 1979; see also Bond et al., 1985; Bond and Atoum, 2000). This has been termed "the demeanour bias" (George et al., 2014: 3; see also Burgoon et al., 2008). For instance, Miller et al. (1983: 113) investigated the role of personality factors on the deception process, and found that individuals who "self-monitored" – that is to say, those who adjusted their interaction style according to social cues – were better able to deceive than those who self-monitored less.

Comparably, Bond and DePaulo (2008) conducted a meta-analysis into individual differences in deception detection, considering factors such as demeanour and transparency (of the speaker) and truth bias and deception detection ability (of the hearer). Their results revealed that some people are consistently judged as "credible" by virtue of their demeanour *even when they are lying* (p. 477). Most strikingly, they found that "a person's credibility has a bigger impact than a person's honesty on whether s/he will be seen to be telling the truth" (p. 487). For this reason, liars who impress others as credible are more likely to be believed than "low credibility truth tellers" (ibid.). When considering why this might be the case, Bond and DePaulo (2008: 487) argue that facial anatomy coupled with "differential experience" of deception and its consequences allow individuals to "hone their deception skills" over time. Credibility, then, is seen as a combination of facial anatomy and the social reinforcement of self-presentational skills (ibid.).

Many self-presentational theorists focus primarily on nonverbal features when considering impression management and credibility, arguing that "the kind of information that is conveyed by nonverbal behaviour is sometimes more intensely and inescapably personal than is the information conveyed by verbal behaviour" (DePaulo et al., 1992: 205; see also Anderson, 2004: 171-2). However, previous research has suggested that attending to verbal behaviour has proven particularly useful for the purposes of both deception detection and credibility assessment (Burgoon et al., 2004; Newman et al., 2003; ten Brinke and Porter, 2012; Yuille, 1988; Vrij, 2008). Evidence which suggests that both verbal and non-verbal behaviours can affect CBCA scores is explored below.

2.2.2 EXTERNAL FACTORS AFFECTING CBCA SCORES: VERBAL AND NON-VERBAL BEHAVIOURS

As noted by Vrij (2015: 14), it is "difficult, if not impossible, to determine the exact impact that many external factors have on CBCA scores". One such external factor, highlighted frequently in the literature due to the original purpose of CBCA (Amado et al., 2015: 5; Howitt, 2006: 289-90; Wells and Loftus, 1991; Akehurst et al., 2011: 239; Santilla et al., 2000), is the age of the witness. Research by Lamers-Winkelman and Buffing (1996), for example, found that even after CBCA coders were instructed to take

into account the witness's age, the statements of older children still obtained higher CBCA scores than those of younger children. Given that there is no evidence to support the notion that older children are inherently more honest in their statements than younger children, these results suggest that older children "may simply have a different style of reporting events which corresponds better with the criteria" (Howitt, 2006: 290; see also Santilla et al., 2000).

Research conducted by Vrij et al. (2000) has found that several external factors can also affect the CBCA scores of adults. Firstly, participants who were informed about credibility criteria were able to produce deceptive statements which had similar scores to participants who produced truthful statements; in fact, the deceptive statements produced by informed liars in this study were "comparable in terms of content and quality with statements given by truth tellers" (p. 67). Secondly, CBCA judges were unable to differentiate between truth tellers and informed liars on the basis of CBCA scores. Thirdly, the majority of statements produced by informed liars "were assessed as truthful by a British CBCA expert" (ibid.). Similarly, Vrij et al. (2002: 280) and Vrij (2004) found that participants' social skills – in relation to factors such as social anxiety, social adroitness, and self-monitoring – were related to their CBCA scores. Specifically, social anxiety was correlated with low CBCA scores, whereas social "adroitness" and self-monitoring were associated with high CBCA scores. Santilla et al. (2000) also found that high CBCA scores were related to verbal ability as indicated by the WISC-R Vocabulary Test[6]. The results of these studies indicate that verbal methods of impression management can influence judgments of credibility (in the form of CBCA scores), thereby "challeng[ing] the view of those who argue that the validity of CBCA has been conclusively demonstrated" (Vrij, 2000: 67).

Proponents of CBCA argue that the Validity Checklist – the fourth and final stage of SVA – is intended to take into account external factors (such as age or social anxiety); without the Validity Checklist, data generated from CBCA are "completely meaningless"

---

[6] "WISC-R" refers to (a revised edition of) the Weschler Intelligence Scale for Children, an IQ test developed by David Weschler. In the study by Santilla et al. (2000:166), children's verbal abilities were assessed through the vocabulary subtest of the WISC-R.

(Köhnken, 2004: 52). However, empirical evidence which supports the efficacy of the Validity Checklist is rare (Howitt, 2006: 289), and, given that it is less comprehensive and formalised than CBCA assessments, some argue that it introduces an element of subjectivity into the procedure (Akehurst et al., 2011: 242; Vrij 2015: 14). In addition, some CBCA experts – such as the Swedish coders included in a study by Gumpert and Lindbald (1999: 279) – make errors in its application. For example, while analysts in this study discussed how issues from the Validity Checklist might have affected children's statements more generally, they often did not discuss how these issues might have affected the specific statement of the child undergoing assessment. In addition, experts demonstrated a tendency to rely overmuch on the score generated by the CBCA, suggesting that Validity Checklist issues are often overlooked or ignored and do not appear to make a significant difference in overall judgments of credibility (ibid.).

The overriding goal of CBCA, particularly when it is used in court, is to verify the *truthfulness* of a given statement (Kulkofsky, 2008: 28). The results of the aforementioned studies call into question the underlying premise of CBCA: namely, that the presence of credibility criteria are indicative of truthfulness. If external factors – such as age, coaching, social skills, and verbal ability – can influence CBCA scores independent of statement veracity, this suggests that CBCA scores alone may not be an accurate or valid method of truthfulness (ibid.) – an argument which has been repeatedly put forth by one of CBCA's pioneers (Köhnken, 1989, 2004), but which is frequently ignored in research. If this is the case, the efficacy of CBCA in detecting *deception* is also called into question. It is important to note, however, that some scholars have experimented with combining CBCA and other methods of deception detection and credibility assessment, with a view to increasing its diagnostic accuracy. This research is explored in 2.2.3.

2.2.3 CBCA: AN INTEGRATIVE APPROACH

As previously discussed (see 2.3), impression management involves both verbal and non-verbal components; liars must therefore effectively control not just their speech but also their behaviour in order to successfully deceive (Vrij, Edward and Bull, 2001). For this reason, some researchers have suggested that methods which focus exclusively on "a

single behavioural cue" (in the case of CBCA, this pertains to speech content) may be too narrow in scope to provide sufficient evidence of deception (Porter and ten Brinke, 2010: 68). Alternatively, it is suggested that researchers pay attention "multiple cues from words, body and face" in order to "provide the lie catcher with increased confidence that deception has occurred" (ibid.). Consequently, researchers have begun to experiment with using CBCA in combination with other methods, thus analysing a constellation of both verbal and non-verbal behaviours (Porter and Yuille, 1995: 454; Vrij, 2004: 172). The few examples of mixed-methodology research that have been conducted have produced promising results: Vrij et al. (2000:257), for instance, applied CBCA, Reality Monitoring (RM), and non-verbal methods, and found that overall accuracy rates rose as high as 81% when all three techniques were combined. Vrij et al (2004), using the same mixed-methodology approach, also found that overall accuracy rates rose to 88%. However, as noted in 2.2, the majority of research into CBCA – including research in which CBCA has combined with other methods – has been conducted in a laboratory setting with "amateur deceivers" (Porter and ten Brinke, 2010:68), or else in field studies which are lacking ground truth (Granhag and Vrij, 2005; Vrij, 2015).

One notable exception is the research conducted by Archer and Lansley (2015). This study outlined a novel approach which investigated six communication channels simultaneously: face, body, voice, interactive style, linguistic content, and autonomic nervous system. The approach essentially combined several methods of both deception detection and credibility assessment, including CBCA (Archer and Lansley, 2015: 231), to develop a total of twenty-seven criteria for analysis. In relation to verbal content, a limited number of CBCA criteria (seven) were incorporated into the analysis, but the criteria were "amended" (Archer and Lansley, 2015: 238) (so that *Coherence* became *Lacks Incoherence* and *Contextual Embedding* became *Lacks Context*, for example). These amendments meant that the seven criteria in question were adjusted for the purposes of identifying "PInS", or "Points of Interest", defined as "occurrences of the twenty-seven criteria when they appear to point to inconsistencies with respect to the speaker's *account* (the story they are trying to convey), their apparent *baseline* and the micro and macro *context*" (pg. 227). As such, the method was intended to avoid directly linking particular verbal and non-verbal cues with either truth, credibility, or deception; instead, researchers focused on identifying mismatches, or "inconsistencies", between

"the speaker's account, their apparent baseline and the context" (p. 255). It was noted, then, that deception was "only one possible explanation" (ibid.) for any inconsistencies identified by coders. Researchers tested the potential of this approach through applying it to real-life cases, in the form of four televised press appeals. It was found that several of the adapted criteria were present in deceptive speakers' statements; one speaker, for instance, used *Inappropriate Detail* (Criterion 3) which was "over structured in linear form" (Criterion 2) (p.242). It should be noted here that the adaptation of CBCA criteria raises some issues that the authors to not appear to explore in their paper (Archer and Lansley, 2015) or subsequent publications (Lansley, 2017). In particular, the theoretical justification for the amendments to existing CBCA criteria does not seem to be made explicit. The authors specify that they have "reduced" (Lansley, 2017: loc. 989) CBCA criteria from 19 to 7, for example, but do not elaborate upon the grounds for doing so. In addition, 5 out of 7 of the adapted criteria appear to simply be "reversed" versions of their CBCA counterparts, such that they are based upon identifying the absence (rather than presence) of verbal content characteristics. As noted in section 2.1.5, CBCA was not designed or intended to be applied for the purpose of detecting *deception* (Köhnken, 2004: 41)*;* on the contrary, it was described by one of its originators as a method for "the detection of the truth" (ibid.; see also Hauch *et al*., 2017).

Despite these shortcomings, Archer and Lansley's (2015) research does raise interesting questions with regard to the use of credibility criteria to detect deception in real-life, high-stakes criminal contexts – such as press appeals for missing or murdered relatives. As previously discussed, press appeals afford a key advantage in this area of research: that is to say, legal ground truth has been established. This is of particular importance given that ground truth is typically lacking in extant research into the efficacy of CBCA (Granhag and Vrij, 2005; Vrij, 2015). Furthermore, it seems pertinent to investigate the diagnostic accuracy of CBCA when applied to press appeals, given the following:

i) Many examples of research have applied CBCA to the statements of adults rather than children (see, for instance, Landry and Brigham, 1992; Ruby and Brigham, 1998; Sporer, 1997; Vrij and Heaven, 1999, Vrij and Mann, 2000; Zaparniuk et al., 1995);

ii)   Several scholars have argued that CBCA is applicable not only to adults'
statements, but to statements *unrelated to sexual abuse* (Köhnken, 2004;
Köhnken et al., 1995); and

iii)   Archer and Lansley's (2015) research, which focuses on press appeals,
incorporates experimental adapted credibility criteria into their
methodological framework.

Despite the usefulness of press appeals as a data source for deception researchers, Archer
and Lansley (2015 :231) note that "academic interest is scant". The present work aims to
address this gap. Previous studies into deception and truth-telling in press appeals are
explored in 2.3.1.

2.3 CBCA AND HIGH-STAKES TRUTH AND LIES

2.3.1 CROCODILE TEARS: PUBLIC APPEALS FOR MISSING PEOPLE

Crocodile tears is a term generally used to describe outward expressions of sadness and
regret which are found to be insincere or "fake" (ten Brinke et al., 2012: 51). In recent
years, this term has come to be used by the media "to capture people's feigning of
superficial grief and anguish over crimes that they, themselves, are ultimately found to
have perpetrated" (Archer and Lansley, 2015: 231). Since 2002, several documentaries
have been developed which highlight the use of *crocodile tears* in real-life, high-stakes
criminal cases; in particular, they point to televised footage in which people make public
appeals for missing people (ibid.).

A small number of studies have been conducted into the topic of deception in public
appeals. Vrij and Mann (2001:123-4) investigated the accuracy of Dutch police officers'
deception judgements of UK press appeals. All five press appeals used in this study
featured speakers who had "been found guilty of killing their own relatives [and]…were
convicted in English courts". They found that police officers "did not perform better than
could be expected by chance", and that the officers' accuracy was not related to their
levels of confidence, their age, their overall experience in the police force, and their
experience of conducting investigative interviews (p.119). ten Brinke and Porter (2012:

469) examined press appeals in order to explore the "behavioural consequences of extremely high-stakes interpersonal deception". Approximately half of these press appeals featured speakers who had subsequently been convicted of killing the missing person. The authors focused on three communication channels – speech, body language, and (emotional) facial expression – and found that liars were often "unsuccessful at emotional masking" (p.475), as certain facial expressions (such as "the presence of a smirk", ibid.) revealed their covert emotions. Furthermore, deceptive speakers were found to use fewer words overall, to use "more tentative words" (ibid.), and to have an increased blink rate. Similarly, ten Brinke et al. (2012) investigated facial, verbal, and body language behaviours associated with genuine and fabricated remorse in press appeals. They found that fabricated descriptions of remorse were associated with: i) a greater range of emotions (perhaps owing to deceptive speakers' "over-compensatory strategy to the task", p.57); ii) (involuntary) facial expressions of happiness and surprise, and iii) an increase in speech hesitations (such as "um", "uh", and "er"). Similarly, Whelan et al. (2014) investigated verbal and non-verbal cues to deception in press appeals. Behaviours which discriminated between truth and lies in this study included some identified in previous research on high-stakes lies, such as head shaking and speech errors, as well as several previously unidentified behaviours which appeared to be specific to press appeals, such as "verbal expressions of hope of finding the missing relative alive" and "verbal expressions of positive emotion towards the relative" (p.523).

Importantly, the latter finding led Whelan et al. (2014: 535) to suggest that certain verbal and non-verbal cues to deception and truth may be "more complex and context specific" in high-stakes circumstances, such as press appeals. They conclude that, within the context of press appeals, "some cues to deception reflect the nature of the social relationships between the offender and the victim, and corresponding attitudes" (ibid.). For this reason, they argue, research into more context-specific cues "might be better accommodated by…a 'social interactionist perspective'". It is worth investigating, then, whether a *standardised* method of credibility assessment (in this case, CBCA) can be successfully applied to a different (high-stakes) criminal context than that for which it was originally designed (as suggested by, e.g., Köhnken, 2004; Köhnken et al., 1995; Porter and Yuille, 1995). Section 2.3.2 outlines the direction of the current research,

particularly in terms of how the current study intends to address the issues highlighted by Whelan et al. (2014).

2.3.2 APPLYING CREDIBILITY CRITERIA TO PUBLIC APPEALS

Following Archer and Lansley (2015), the present work applies credibility criteria to statements from UK press appeals in real criminal cases. The use of this kind of data ensures that: i) legal ground truth has been established, and ii) the efficacy of CBCA, as a standardised method of credibility assessment, can be tested on statements produced in different high-stakes circumstances than those for which it was designed. The specific press appeals included in the dataset are described in Chapter 3. In contrast to Archer and Lansley's (2015) study, however, I apply both traditional CBCA and the experimental, adapted version for the purposes of comparison. Specifically, assessing both sets of criteria alongside one another allows me to assess whether a "method for the detection of the truth" (Köhnken, 2004: 55) can be used for lie detection. By extension, it also facilitates an investigation of whether the "amended" (Archer and Lansley, 2015: 238) criteria, many of which are based on the absence of credibility-related content characteristics, can be used for the purposes of lie detection. Additionally, it is important to note that, in order to effectively compare both sets of criteria, I will be examining part of a single channel (that is, verbal content) rather than six channels, as in SCAnR. With this in mind, and in light of the dearth of linguistic research into deception detection and credibility assessment, I will analyse the data in question using a mixed-method discourse analytic approach. This approach facilitates the focus on interactional detail suggested by Whelan et al. (2014) – a focus that has hitherto been overlooked. My chosen methodology will be discussed in detail in Chapter 4.

CHAPTER 3: DATA

3.1 OVERVIEW

The current research examines data which consists of televised footage of public appeals for missing people, collected from news and media websites within the United Kingdom. The dataset comprises a total of eight clips from press appeals or press interviews made by people in relation to their missing or murdered loved ones. All clips were televised shortly after the person in question was found to be missing or murdered. The datasets have been categorised according to whether the relatives' appeals were deceptive or honest. An equal number of deceptive and honest clips were used (four for each category). Details of the categorisation process are outlined in 3.2. Descriptions of the specific criminal cases of the truthful and deceptive press appeals, as well as the length and number of words spoken in each clip, are given in 3.3 and 3.4, respectively. Lastly, I outline my transcription process in 3.5.

3.2 ESTABLISHING LEGAL GROUND TRUTH: CATEGORISING THE DATASETS

As discussed in 1.4 and in more depth in Chapter 2, many field studies which focus on deception in real-life contexts – and, in particular, on the use of CBCA as a method of detecting deception in these contexts – rely upon data which lacks ground truth. Ground truth is defined as "definite knowledge about whether the statements given by research participants are in fact truthful or deceptive" (Hartwig, Granhag and Luke, 2014: 4). While some researchers – such as Esplin et al. (1988) and Craig et al. (1999) – may rely upon "soft" evidence such as confessions to determine ground truth, it is important to note that the fact that an individual has confessed does not itself constitute definitive proof that s/he committed the offence (Whelan et al. 2014: 526). For this reason, the current study includes only retrospective cases which have both moved through the UK criminal justice system, and in which a person or persons have been convicted as guilty (or established as innocent) in a court of law, on the basis of "overwhelming evidence" (Whelan et al., 2014: 526). In line with Whelan et al. (2014: 526-7), the classification of the statements in the current study were based upon forensic evidence, DNA evidence, the presence of the victim's blood in the perpetrator's car/home/clothing, audio/video footage, eyewitness testimony, phone records, and/or an account/alibi which was found to be inconsistent with evidence. The specific pieces of evidence tied to each individual criminal case are outlined in Table 1, below:

Table 1. **Evidence for statement classification.**

Speaker	Classification	Evidence
Tracie Andrews	Deceptive	Eyewitness testimony contradicting Andrews' account Forensic evidence pertaining to murder weapon (penknife) Eventual confession (post-trial)
Karen Matthews	Deceptive	Multiple witness accounts contradicting Matthews' story Matthews' own, repeatedly contradictory, testimony Forensic toxicology report on Shannon (shown to have been sedated with Temazepam for up to 20 months)
Mick Philpott	Deceptive	Audio recording between Mick Philpott and wife Mairead Multiple witness accounts contradicting Philpott's story Forensic evidence (petrol on Philpott's clothing)
Stuart Hazell	Deceptive	Forensic evidence (Tia's blood and Hazell's semen) Post-mortem photographs of Tia on Hazell's camera Location of body (attic of Hazell's home) Guilty plea at trial
David Sharp	Truthful	As above (Stuart Hazell convicted of murder of Tia Sharp)
Danielle Wilson	Truthful	CCTV footage (of missing girl with teacher Jeremy Frost) Multiple witness statements Guilty plea at trial (from Jeremy Frost)
Martin Stammers	Truthful	CCTV footage (of missing girl with teacher Jeremy Frost) Multiple witness statements Guilty plea at trial (from Jeremy Frost)
Ian Fyles	Truthful	Coroner's report (verdict of accidental death) Witness testimony

3.3 DECEPTIVE APPEALS: A SUMMARY

Clip 1 is a 1996 press appeal made by Tracie Andrews, in relation to the murder of her boyfriend Lee Harvey. The clip was retrieved from the ITV documentary *Tears, Lies and Videotape* (2009); as a result, the clip is interrupted at intervals by commentary. Points at which the clip is interrupted are indicated in the transcript through keystroke symbols (for more details, see 3.5; to view the transcripts, see Appendices 1 and 2). Andrews speaks for a total of 58 seconds (excluding interruptions), with 183 words. Clip 2 is a 2008 press appeal made by Karen Matthews in relation to the disappearance of her 9-year-old daughter Shannon Matthews. Clip 2 has also been retrieved from the documentary *Tears, Lies and Videotape* (2009). Karen Matthews speaks for 36 seconds (excluding interruptions), with a total of 110 words. Clip 3 is a 2012 press appeal made by a couple, Mick and Mairead Philpott, in relation to a fire at their home which resulted in the deaths of 6 of their children. This clip is 2 minutes and 37 seconds long, and totals 372 words, all of which are spoken by Mick Philpott. It was retrieved from YouTube via a video created by On Demand News (2012a). The fourth dataset is a 2012 press interview with Stuart Hazell, in relation to the disappearance of 12-year-old Tia Sharp, his

girlfriend's granddaughter. The clip is 10 minutes and 31 seconds long, with 2,029 words spoken by Hazel, as was retrieved from YouTube in the format in which it was aired on ITV in August 2012.

3.4 TRUTHFUL APPEALS: A SUMMARY

Clip 5 is a 2012 press appeal given by David Sharp, in relation to the disappearance of Sharp's 12-year-old niece Tia Sharp. The clip is 2 minutes and 9 seconds long, with 101 words spoken by David. This clip was retrieved from an article in the Telegraph online about Tia's disappearance (The Telegraph, 2012). Clips 6 and 7 are both from a 2012 press appeal given by Danielle Wilson and Martin Stammers, in relation to the disappearance of Wilson's 15-year-old daughter Megan Stammers. The press appeal in its entirety is 8 minutes and 11 seconds long, but Wilson speaks for 58 seconds with a total of 145 words (Clip 6). Martin Stammers, Megan's stepfather, speaks 112 words for a total of 59 seconds. This clip was retrieved from from a YouTube video created by On Demand News (2012b). Clip 8 is a 2013 press appeal given by Ian, Caroline, Shaun, and Kimberley Fyles in relation to the disappearance of 19-year-old Jason Fyles. It is 1 minute and 38 seconds long and totals 261 words, 253 spoken by Jason's father Ian and 8 spoken by his mother Caroline. This clip was retrieved from social media site YouTube, in a video created by Northumbria Police (2013). Clips 6, 7 and 8 were not edited or interrupted by commentary.

3.5 ISSUES WITH THE CHOSEN DATASET

3.5.1 ADEQUACY OF NARRATIVE MATERIAL

Both the original credibility criteria and their adapted counterparts have been applied to transcribed statements for the purpose of analysis in the current work. It is important to note, however, is that the statements under scrutiny vary widely with regard to: i) their level of detail, and ii) the total number of words spoken. Ideally, the clips would be of equal (or comparable) length and quality, particularly given that Dukała and Polczyk (2014) and Vrij (2008) note that narrative length often affects the diagnostic efficacy of CBCA as a method. Specifically, Vrij (2008: 228) argues that "the CBCA method has been developed for use on longer statements". Dukała and Polczyk (2014: 32) state that a statement which is "sparing, short, forced, and/or contains a very small number of

details" is likely to contain few credibility criteria even if the speaker is telling the truth (see also Tully, 1998: 184). Comparably, a statement which is "extensive" and in which "the free utterance of the witness is complex and rich" is likely to contain more credibility criteria, even if the speaker is lying (p.33).

Narrative length, then, "has an impact on the accuracy rate of content-based methods" (ibid.), such as CBCA and the adapted criteria. However, while forensic science professions, such as fingerprint analysis, rely upon "benchmarked standards" (ibid.) to determine the adequacy of the material or object(s) under scrutiny, no such standards exist in relation to the quality of narrative material – there are no guidelines given in CBCA literature as to the minimum length of a statement, for example. In addition, lengthy and unedited footage of (UK-based) public appeals is typically very difficult to find, and the statements included in the dataset – while variable in terms of length – were among the few available for analysis.

3.5.2 DATA RETRIEVAL METHODS: INTERVIEWS VS PRESS APPEALS

When CBCA is implemented as part of the wider SVA procedure, narrative material is collected by means of a semi-structured investigative interview (Köhnken, 2004: 48). Popular methods of interviewing child witnesses which are often combined with SVA are the "step-wise interview" (Yuille et al., 1993: 99-100; see also Hewitt, 1999: 204) and the "cognitive interview" (Vrij, 2008: 237). The former is specifically designed to "maximise recall while minimising contamination" (Kapardis, 2014: 128), and includes aspects such as rapport building, free narrative, general and specific questions, and interview aids (where necessary). The latter was developed in America and is based upon "psychological principles of remembering and retrieving information from memory" (Vrij, 2008: 237). While not all SVA experts use exactly the same interview type, it is generally agreed that interviewing methods should: i) incorporate as many open-ended questions as possible to encourage free narrative, and ii) use focused rather than leading questions[7] to prevent contamination, particularly with more vulnerable and suggestible

---

[7] Vrij (2008:206-7) explains that a "focused question" requests further details without guiding the recipient towards a specific response, such as "Can you tell me what the man looked like?" after the witness has mentioned a man. By contrast, a "leading question" encourages the respondent to simply agree with information contained within the question, such as "Was the man black?"

witnesses (Vrij, 2008: 206-7). The entire interview is recorded and transcribed, but not all of the transcript may be used for analysis; rather, the analyst will select diagnostically relevant portions of the statement which related to "disputed" elements of the witness's narrative (p.205).

Following Archer and Lansley (2015), however, the data analysed in the current work were generated as part of public appeals for missing people, and have been retrieved from documentaries and social media sites. In addition, some of the clips (Andrews, Matthews, Hazell) were edited as part of press interviews and documentaries. As discussed in Chapter 3, data from press appeals affords a particular advantage: legal ground truth has been established in these cases. Nonetheless, it is important to note that there are drawbacks to relying upon edited, incomplete, and/or fragmented versions of the original appeals. As Limberg notes:

> Any form of documentary is the result of an editing process which makes the recordings appealing for the audience […] data are never exhibited in their entirety because…[they] are cut into several scenes. This is certainly a major drawback of these television formats from the point of view of linguistic analysis because we can never know which details might have been edited out.

<div align="right">Limberg (2008: 157-8)</div>

The statements by Tracie Andrews and Karen Matthews (clips 1 and 2) were retrieved from a documentary relating to deceptive public appeals for missing people, *Tears, Lies and Videotape* (2009). In addition, the YouTube video from which Stuart Hazell's statement was retrieved contained the edited version of the press interview which was aired on ITV in August 2012. There are several points in all three of these transcripts where the speaker is interrupted by commentary (Andrews and Matthews) or where footage has been edited out (Hazell)[8]. Consequently, there is a level of "contamination" (Kapardis, 2014: 128) of the data, such that the presence or absence of certain criteria may be attributable not to the truth or falsity of the account but to the editing process and/or interview style. As noted in 3.3.1, however, there was limited availability to

---

[8] Interruptions are indicated in the transcripts (found in the Appendices) by the keystroke symbol […]

unedited versions of the original press appeals. In addition, the analysis will be conducted with full awareness of the limitations of using edited data.

3.6 TRANSCRIPTION METHOD

The method I have chosen is a standard "turn-based" transcription style used in conversation analytic (CA) research. Given that the majority of the speech transcribed in the dataset is monologic (delivered by a single speaker), a turn-based method is preferable over, for example, the stave method (which is typically better suited to data with multiple interactants) (Bousfield, 2008: 8). However, I have opted to simplify the transcription conventions on the basis that – unlike traditional CA methodology – I aim to focus exclusively on verbal content, and not on, for example, prosodic features such as intonation, or "non-verbal elements of talk" (Liddicoat, 2007: 34) such as pauses, eye gaze, or smiling. Table 2, adapted from Bousfield (2008: 8), outlines the transcription conventions used in this study. These are based upon sources such as Ochs (1979), Gumperz, 1992, Eggins and Slade (1997), and Bousfield (2008). The transcripts of the deceptive and truthful clips can be found in Appendices 1 and 2, respectively.

Table 2.   Transcription conventions.

Transcription conventions	
Initials	Speaker identification within extract ("SH" = "Stuart Hazell" and so on)
<xxx>	The speaker's contribution is indistinct
=	Latching contribution
[]	Overlapping speech
[…]	Indicates when clip is interrupted by commentary or editing

CHAPTER 4: METHODOLOGY

4.1 EXAMINING THE CRITERIA

As noted in Chapter 2, CBCA is the third of four stages in a full SVA. Research conducted into the efficacy of this method, however, most often focuses exclusively on the third stage, CBCA (see for e.g., Esplin et al., 1988; Parker and Brown, 2000; Raskin and Esplin, 1991; Lamb et al., 1997; Vrij, 2008). Following previous research, the current study also focuses exclusively on credibility criteria – both the original CBCA criteria and the adapted version adopted by Archer and Lansley (2015). Sections 4.1.1 and 4.1.2 examine both sets of criteria, in terms of their categorisation and underlying hypotheses.

4.1.1 ORIGINAL METHODOLOGY

CBCA typically incorporates the 19 criteria compiled by Steller and Köhnken (1989). These criteria are divided into four separate categories: *General Characteristics, Specific Contents, Motivation-Related Contents*, and *Offence-Specific Elements*. The table below summarises all 19 criteria and their respective subcategories[9]:

Table 3. CBCA criteria (taken from Vrij, 2008).

CBCA criteria
General characteristics
1. Logical structure
2. Unstructured production
3. Quantity of details
Specific contents
4. Contextual embedding
5. Descriptions of interactions
6. Reproduction of conversation
7. Reporting of unexpected complications during the incident
8. Unusual details
9. Superfluous details
10. Accurately reported details misunderstood
11. Related external associations
12. Accounts of subjective mental states
13. Attribution of perpetrator's mental state
Motivation-related contents

---

[9] A detailed description of all 19 credibility criteria, and how they are applied to statements, is offered by Vrij (2008:209-212). To view this, see Appendix 3.

14. Spontaneous corrections
15. Admitting lack of memory
16. Raising doubts about one's own testimony
17. Self-deprecation
18. Pardoning the perpetrator
Offence-specific elements
19. Details characteristic of the offence

As shown in Table 3, Criteria 1 to 3 are subsumed under the category of *General Characteristics,* which "refers to the statement as a whole" (Vrij, 2008: 209). It is argued by Köhnken (1996, 1999, 2004) that these criteria would be too cognitively difficult to fabricate; thus, they are more likely to be present in truthful than deceptive statements. The second category, *Specific Contents,* encompasses Criteria 4-13. As the name suggests, these criteria are more specific, referring to particular parts of the statement – such as phrases or sentences – which relate to its "concreteness and vividness" (Vrij, 2008: 210). Once more, it is argued that these criteria are present more often in truthful than deceptive accounts because they are too cognitively demanding to fabricate (Köhnken, 1996, 1999, 2004). The third category, *Motivation-Related Contents,* encompasses Criteria 14-18. The theoretical framework on which this category is based suggests that "a truthful person will not be as concerned with impression management as deceivers" (Vrij, 2008: 211). Consequently, deceivers will try harder to construct a credible impression, omitting information which they believe will damage this impression; truthful speakers, on the other hand, will likely include information which contradicts stereotypes about truthfulness (see also Köhnken, 2004: 49). For this reason, Criteria 14-18 are sometimes referred to as "contrary-to-truthfulness-stereotype" criteria (Ruby & Brigham, 1998). The fourth and final criteria, *Offence-Specific Elements*, includes a single criterion which relates to typical elements of a particular criminal act, but which may be "counter intuitive for the general public or discrepant to everyday knowledge or stereotypes" (Köhnken, 2004: 52). All criteria outlined above will be examined in the current work.

Determining the impact of criteria depends, at least in part, upon relevant personal and situational factors. Köhnken (2004: 53) states that experts must evaluate a given CBCA score with reference to a "standard". This standard is based upon, for example, the

witness's cognitive abilities, the type of event, the number of previous interviews, and so forth – all of which are assessed in the early stages of SVA and/or as part of the Validity Checklist. The implementation of these stages prior to CBCA allows the expert to generate a standard against which the CBCA score can be measured. In particular, experts may refer to these standards in order to determine "when [a] particular content feature is unlikely to occur in a statement fabricated by *this* witness" (p.52, emphasis original).

SVA as a wider procedure involves the development of specific hypotheses based on case-file analysis, and these hypotheses do acknowledge the potential for "partially fabricated" statements (Köhnken, 2004:46). If there are parts of the statement which are known to be indisputable (for instance, those which have been corroborated by evidence), the practitioner is expected to acknowledge that these parts have minimal diagnostic significance. Instead, s/he must focus the analysis only on elements which are "diagnostically relevant" (ibid.) – namely, those which are suspected to have been fabricated, or which are "disputed" (Vrij, 2008: 205). When CBCA is used in isolation, however, this process of "selective differentiation" (Köhnken, 2004: 48) is not carried out, since its implementation is dependent upon the development of the aforementioned hypotheses. As a result, statements may be scored erroneously highly. As Köhnken (2004: 48) notes: "This again demonstrates the importance of appropriate hypotheses *before* the examination begins" (emphasis original). Similarly, the adapted criteria may appear to be absent even in fabricated statements if the speaker has included elements of truth.

As an approach to linguistic data, content analysis distinguishes between manifest content and latent content (Vaismoradi, Turunen and Bondas, 2013: 399). Manifest content refers to that which "explicitly appears in a text"; latent content, to "meanings implied by the written content that do not actually appear in the text" (Gray et al., 2007: 286). Generally, researchers argue that types of content analysis which are deductive – that is, ones which involve the application of categories developed a *priori*, such as CBCA – are better equipped to deal with manifest than latent content, given the emphasis on objectivity and systematicity (ibid.; see also Laswell, 1942; Vaismoradi, Turunen and Bondas, 2013). By contrast, analysis of latent content involves an evaluation of the underlying meaning of a

given narrative, and thus demands a higher level of interpretative complexity – a process which is labelled by some researchers as inherently more "subjective" (Tashakkori and Teddie, 1998: 122). A focus on quantifying the expression of manifest content can be an effective way of establishing the reliability of the method (ibid.; see also Gray et al., 2007).

4.1.2 ADAPTED CRITERIA

The methodology adopted in Archer and Lansley (2015) is a six-channel analysis system in real time (SCAnR) that trains users to consider twenty-seven criteria (which could point to PInS), relating to the face, the body/gestures, the voice, linguistic content, interactive style and psychophysiology. It is argued that when speakers lie, their "emotion and cognition domains are more likely to collide…thereby creating competition for resources" (Lansley, 2017: loc. 406). This results in leakage from one or more of the six channels identified. They note, however, that such leakage is considered to constitute a PIn, and therefore warrants further investigation, *only if it is inconsistent* with "the ABC's" (Lansley, 2017: loc. 417; see also Archer and Lansley, 2015): the speaker's Account (the story s/he is attempting to convey), his/her Baseline behaviour, and the Context (in relation to both the immediate setting and wider, "macro" contextual factors such as culture and politics).

Part of the analysis of linguistic content involves transcribing spoken data and applying an adapted version of CBCA criteria. The CBCA criteria have been adapted in two ways: firstly, the polarity of the characteristics is effectively "reversed" (so that, for instance, CBCA Criterion 2, *Unstructured Production,* becomes *Linear, Overly-Structured Reproduction*). In addition, the criteria have been condensed so that although the final number of criteria totals 7 (rather than 19), they have subsumed other criteria. Criterion 3 of Archer and Lansley's (2015) method, for instance, incorporates Criteria 8, 9, and 11 from the original list of CBCA criteria. The 7 adapted criteria are outlined, in brief, in the table below[10]:

---

[10] To view a more in-depth description of how the criteria are applied, see Appendix 4.

Table 4. Adapted criteria (summarised from Lansley, 2017: loc. 973-1045).

Adapted criteria
1. Lacks coherence
2. Linear (in time), overly-structured reproduction
3. Inappropriate detail
4. Lacks context
5. Lacks interactivity
6. Lacks personal credibility/memory slurs
7. Lacks accounts of mental states (self and other)

It is important to note that in this methodological approach, the analysis of content is not restricted to the application of adapted CBCA criteria as described above. The authors also examine tense (past, present, conditional, and future) and distancing (through, for example, the use of pronouns, subject/noun changes, emotional terms, exclusion qualifiers, etc.), and are developing the use of further content criteria using software for corpus analysis (such as Wmatrix3 and Linguistic Inquiry and Word Count (LIWC); Archer and Lansley, 2015:258). In addition, content is only a single channel; five other channels are also considered, with a further 23 "PInS" subsumed within these channels. Given the direction of the current work, however, I will be focusing on one particular aspect of the methodology – the adapted CBCA criteria – rather than applying SCAnR in its entirety. This will allow me to draw effective comparisons between the original and adapted CBCA criteria, assessing the efficacy of both sets of criteria when the analyst is only able to access a single channel.

4.2 TRAINING REQUIREMENTS FOR CBCA PRACTITIONERS

According to Vrij (2008: 230), a key question levelled at CBCA practitioners is whether or not they are better at classifying truth tellers and liars than laypersons with no training in applying the method. Unfortunately, however, he notes that there is little knowledge about the recommended length and content of CBCA training courses, and, as a result, "it is debateable how much training is needed" (ibid.). The shortest example of training in CBCA research was 45 minutes (Landry and Brigham, 1992). Raskin and Esplin (1991) recommend a two- or three-day workshop, whereas Köhnken (1999, 2004) strongly advises an intensive three-week training course. In particular, he states that identifying credibility criteria in witness statements is "a rather complex task" (Köhnken,

2004: 57) which cannot be successfully carried out on the basis of insufficient training. Inter- and intra-rater reliability in particular is argued to be negatively impacted by poor training and lack of experience (ibid.). To address this, he recommends a training programme which he and his colleagues have developed and used in all of their research on CBCA since the mid-1990s (see, for example, Köhnken and Höfer, 1999; Petersen, 1997). The training course suggested by Köhnken (1999, 2004) spans the course of three full weeks, five days a week, with 7-8 hours per day during weeks 2 and 3. The key components of this training are identified in Table 5, below:

Table 5. CBCA training course (taken from Köhnken, 2004: 58).

Components of CBCA coder training
1. Reading of relevant book chapters, research papers, and detailed descriptions of CBCA criteria
2. Lectures on observation and rating methods and common rating errors
3. Presentation of extended criteria descriptions; discussion of positive and negative examples (i.e., sequences which are likely to be erroneously assigned to a certain criterion) of each criterion, homework assignment
4. Discussion and evaluation of homework, rehearsal of criteria descriptions, identification of criteria in transcribed statements, homework assignment
5. Discussion and evaluation of homework, introduction of rating scale, presentation and discussion of examples, homework assignment
6. Discussion and evaluation of homework, application of rating scale to transcribed statements, discussion of consistencies and discrepancies, comparison with expert ratings, homework assignment
7. Discussion and evaluation of homework, discussion with experts, presentation and discussion of examples of transcribed statements

Köhnken (2004: 58-9) describes examples of research conducted to assess the effects of this particular training programme on inter- and intra-rater agreement. He notes that Petersen (1997), for example, found that simply reading texts on CBCA and SVA or attending a seminar did not significantly increase the average interrater reliability, whereas the training package as described above increased interrater reliability from 40 to 70 per cent (Köhnken, 2004:59). For this reason, he argues, applying CBCA without sufficient training and experience is likely to result in "a high level of error variance" (p.60).

Unfortunately, however, it seems that this and similar training programmes are largely inaccessible in the United Kingdom. Due, perhaps, to the sensitive nature of the testimony to which CBCA is typically applied (namely, child witness statements in sexual abuse cases), access to both training and suitable data tend to be limited to practitioners within relevant professions and professional contexts. Issues around both training (Bull, 2004; Köhnken, 2004; Vrij, 2008) and access to data in which legal ground truth has been established (Granhag and Vrij, 2005; Wells and Loftus, 1991; Whelan et al., 2014) are well-documented in credibility assessment and deception detection research more generally.

As a result of the restricted access to any formalised training, the application of the criteria in the current work is based primarily on component 1 as identified in Table 5 (above): *reading of relevant book chapters, research papers, and detailed descriptions of CBCA criteria.* It is therefore important to acknowledge that the results of my analysis may be, in part, related to the lack of training and practical experience. Importantly, however, the current work offers insights from linguistics which have thus far been neglected in CBCA research, despite the fact that credibility criteria are based in, and applied to, language. In order to examine the methodological differences between CBCA and broadly conceived discourse analysis (henceforth DA), it is necessary to first examine the theoretical assumptions about language that underpin CBCA and content analysis more generally. This is the focus of section 4.3. Leading on from this, section 4.4 discusses DA as it is understood and applied in the current work, and juxtaposes this with how CBCA is typically applied.

4.3 CONTENT ANALYSIS

According to Parker and Brown (2000: 239), methods of content analysis, including CBCA, are used to "make inferences concerning an individual's transitory psychological state by *objectively* and *systematically* identifying specified characteristics within verbal communication" (emphasis added). From this, we can see that content analysis is grounded in the positivist epistemological tradition, in that language is conceptualised as *representing* (rather than constructing) reality; speech is therefore viewed as a route to accessing speakers' internal psychological structures, phenomenological experiences,

and so forth (Scheurich, 1997: 29; Wood and Kroger, 2000: 28). As noted in 4.1.1, the cognitive and motivational components of CBCA's underlying hypothesis (Köhnken, 1999) make certain presumptions about what particular verbal characteristics represent in the minds of the speaker(s). Specifically, criteria 1-13 are assumed to reflect cognitive load, while criteria 14-19 are assumed to reflect self-presentational concerns (in relation to, for example, deceptive speakers being more motivated to avoid displaying stereotypically deceptive behaviours). Although the adapted criteria developed by Archer and Lansley (2015) are adapted, they are still assumed to reflect internal (cognitive and emotional) processes; Criterion 3 (*Inappropriate Detail*), for instance, is assumed to reflect how memories based on real life experience are typically encoded and represented in speech (Lansley, 2017).

Given the emphasis on both objectivity and systematicity (Parker and Brown, 2000: 239, see above), content analysis prioritises the development and refinement of specific categories, which are then typically assigned a numerical value (using, for instance, scalar or dichotomous coding rules) for the purpose of "measuring" the presence or absence of (verbal) characteristics identified within the aforementioned categories (Smith, 2000: 324). The development of the categories in question may be (at least partially) data-driven, but as noted by Schreier (2012: 32), content analysis "is only rarely used in an exclusively data-driven way". In the case of CBCA, the method has been popularised as a systematic approach to credibility assessment and, hence, common research practice involves applying the (pre-defined) criteria outlined by Steller and Köhnken (1989) to the data in a top-down fashion (rather than, for example, generating new criteria/categories *a posteriori* for each individual dataset). When CBCA is applied in isolation, then, it is – like many methods of content analysis – more descriptive than critical (Drisko and Maschi, 2016: 68)[11].

---

[11] It is important to note that this argument is less applicable to SVA and SCAnR as broader procedures, given that these methods in their entirety both involve the critical examination of personal and contextual factors, and that analysts are advised to assess the influence of these factors on the statement's overall score.

4.4 CONCEPTUALISING DISCOURSE AND ITS ANALYSIS

As noted by Schriffin (1994: 5), "Discourse analysis is widely recognized as one of the most vast, but also one of the least defined, areas in linguistics." One reason for this is that there are manifold understandings of what constitutes "discourse", depending on the theoretical slant of a given piece of research (ibid.). Linguistic paradigms such as Conversation Analysis, Variation Analysis, Interactional Sociolinguistics, and Pragmatics all have their own understanding(s) of discourse and have developed their own ways of analysing it (Schriffin, 1994).

It is beyond the scope of the current work to undertake an extended debate about how discourse is or should best be conceptualised (for a review, see Drew and Heritage, 1992; Schriffin, 1994). The objective of this study is not to dissect epistemological positioning at length; rather, its overarching aim is to assess the usefulness of a credibility assessment tool when applied to a particular type of data (that of public appeals for missing persons) through drawing upon existing linguistic theory. In the interests of analytic transparency, however, it is necessary to briefly touch upon my conceptualisation of, and approach to, discourse. Specifically, a functional view of language (cf. Schriffin, 1994) is adopted here, in that language is examined in relation to its societal functions (ibid.). To clarify:

> …functional analysis concentrates on how people use language to different ends as well as on the unintended social, cultural, and expressive meanings stemming from how their utterances are embedded in contexts.
>
> Pawelczyk, 2011: 54

Discourse is therefore understood broadly in the present work as situated "language-in-use" (Pawelczyk, 2011: 46). According to this definition, the analytic focus is not only on linguistic *form* but also on *function* (Roberts and Campbell, 2006), on how language is used in context (Pawelczyk, 2011: 47), and on how experience is "fundamentally constituted" by interactants through talk (Wood and Kroger, 2000: 28).

In contrast to content analysis, then, we may note that the approach adopted in this thesis focuses less on language as a route to internal structures and more on "discourse itself" (Wood and Kroger, 2000: 28). While categories do sometimes form part of a discourse analytic approach, the process of categorisation is typically grounded in the discourse itself rather than based on categories pre-defined and imposed on the data *a priori* (as in CBCA, where criteria are specified before the data is examined). That is to say, categories are not viewed solely as the domain of the analyst, but of the discourse participants themselves (ibid.). Categories and categorisation, then, are recognised as socially constructed and are "constantly questioned rather than taken for granted" (Wood and Kroger, 2000:29).

With this juxtaposition in mind, it can be seen that discourse analysts and content analysts operate within different – perhaps even opposing – epistemological perspectives, especially with regard to how they view language in general, and how they arrive at, and use, analytical categories. It is therefore necessary to explain, in concrete terms, how I intend to approach the original and adapted criteria with the use of discourse analytic methods. This is the focus of 4.5.

4.5 ADOPTING A MULTI-METHOD APPROACH

As will already be clear from the epistemological positioning of this study (outlined in 4.4), the research is intended to be predominantly data-driven rather than theory-driven (Roberts, 2003; Sarangi and Roberts, 1999; Sarangi 2000). While the overarching research purpose necessarily predetermines the analytical focus on certain factors, this research purpose "does not presuppose how [these factors] will be manifest in the data" (Haworth, 2009: 46). The selection of, and the reliance upon, specific analytical tools will thus be determined in large part by the data (ibid.; see also Silverman, 2006: 236-237).

Following Pawelczyk (2011: 54-56) and others (Haworth, 2009; 42-47; Galasiński, 2000), then, the present study does not intend to operate strictly within the boundaries of one analytical paradigm; rather, it adopts a multi-method approach of "broadly conceived discourse analysis" (Pawelczyk, 2011: 54) which subsumes aspects of, for example,

(Gricean) Pragmatics and Interactional Sociolinguistics. While it is important to acknowledge that these approaches conceptualise discourse and its analysis somewhat differently (Schriffin, 1994), utilising a combination of their "conceptual apparatuses" (Pawelczyk, 2011: 54) facilitates an approach which is firmly grounded in the data. Nevertheless, it is worth considering now particular concepts likely to be of use/interest in the process of analysis, given the nature of the data and the global research purpose.

4.5.1 (GRICEAN) PRAGMATICS: SPEAKER MEANING, IMPLICATURE, AND ACTIVITY TYPES

As Schriffin (1994: 9) notes, a pragmatic approach to discourse stems primarily from the work of philosopher H.P. Grice (1957, 1968). Within Gricean pragmatics, **non-natural meaning** (or **meaning-nn**) is a particularly important concept (ibid.). Non-natural meaning is distinguished from natural (literal, conventional) meaning, such that we may separate the linguistic form or *content* of an utterance from what the speaker actually intends to communicate in context (Grice, 1957: 58). Similarly, Grice's (1975) **implicature** encompasses utterances which "convey an additional level of meaning, beyond the semantic meaning of the words uttered" (Thomas, 1995: 57). In order to explain the way in people arrive at a speaker's implied meaning, Grice introduced the Cooperative Principle (CP):

> Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.
>
> Grice, 1975: 45

The attendant four conversational maxims – Quantity (be informative), Quality (be truthful), Relation (be relevant), and Manner (be clear and orderly) – may be deliberately "flouted" by speakers with the "deliberate intention of generating an implicature" (Thomas, 1995: 65).

Leech (1983: 111) notes that the value of the Grice's work lies in its "division of labour" between the (semantic) sense of an utterance and its (pragmatic) force. Specifically, it

acknowledges that a speaker's intended meaning "is not necessarily closely related" to what is said explicitly – that is, what is contained with the "conventional [manifest] content" (Levinson, 1983: 17). Such concepts may prove particularly useful here, facilitating a critical examination of the relationship between the verbal content criteria used in CBCA and (contextualised) speaker meaning, or **meaning-nn**.

Given the pragmatic emphasis on "the assignment of meaning in context" (Thomas, 1995: 184; see also Finkbeiner et al., 2012: 1; Meibauer, 2012: 9; Wharton, 2010: 75), it will also prove necessary to adopt a pragmatic framework through which to describe and analyse the context of a press appeal/interview. Levinson's (1979: 368) notion of **activity types** will be adopted here, defined as a "culturally recognised activity" which is "goal-defined [and] socially constituted", such that participants are constrained with regard to (often communicative) "allowable contributions". According to Bousfield (2008: 170), the notion of activity type is one method by which we can begin to understand contextual elements within a given speech event. Not only does language shape context, but context shapes language, such that participants within a given activity type are expected to behave, communicatively speaking, in a way which is consistent with both the context and their respective role(s) within that context (p.170). When attempting to define or describe a particular activity type, we may consider the following features: the participants' goals, turn-taking, allowable contributions (which communicative behaviours are in/appropriate), and so forth (Thomas, 1995: 189-190; Bousfield, 2008: 172-3).

With regard to the latter, a relevant approach for analysing interlocutors' "allowable contributions" (Levinson, 1979: 368) is offered by speech act theory, developed by philosophers John Austin (1962) and John Searle (1962, 1969). Put simply, language is conceptualised not just as descriptive, but as able to "perform a range of other actions that can be indicated in the performance of the utterance itself" (Schriffin, 1994: 6). For instance, *Can you pass the salt?* can be understood both as a question and as performing the action of "requesting" (ibid.). While speech act theory was not originally designed to analyse discourse, issues which are highlighted as part of speech act theory (such as indirect speech acts and context-dependent meaning) have led to its use in discourse

analysis, and may also prove illuminating in the current work for the purpose of examining which speech acts do/do not appear in the activity type of a press appeal, and how this corresponds with the original and adapted criteria.

4.5.2 INTERACTIONAL SOCIOLINGUISTICS: FACE, FACEWORK, AND IMPRESSION MANAGEMENT

As discussed in Chapter 2 (section 2.1.1), one of the underlying hypotheses of CBCA pertains to the concept of *impression management* (Köhnken, 2004; Vrij, 2008). A potentially relevant approach to the current work, then, is offered by Interactional Sociolinguistics, the development if which is (at least partly) attributed to the work of Erving Goffman (Schriffin, 1994: 102). In relation to impression management, the work of Goffman (1959, 1971, 1974) is particularly significant. Indeed, some researchers see Goffman as "the father of impression management theory" (Wallace, 1999: 28). According to Goffman, an individual may strategically manage his expressions in order to "convey an impression to others which it is in his interests to convey" (1959: 4). Goffman differentiates between expressions *given off* (unintentional, non-strategic communication) and expressions *given* (intentional, strategic communication), with the latter most often linguistic in nature[12] (1959: 136; see also Ellison et al., 2006: 417).

Related to Goffman's conceptualisation of self-presentation is the notion of *face*, defined as "the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact" (1967: 5). According to this definition, then, face is not a fixed, internally situated characteristic; rather, it is "the successful presentation of *any* identity" (Holtgraves, 2002: 38; emphasis original) which is negotiated in interaction. When interacting with others, an individual must attempt to manage face by engaging in *facework*, or verbal and non-verbal acts which effectively ensure that "whatever [an individual] is doing is consistent with face" (Goffamn, 1967: 12). A person who is attempting to control or manage others' impressions may therefore need to engage in facework (Gass and Seiter, 2016: 87). Facework, as well as impression management more generally, are often managed by "largely linguistic…means" (Holtgraves, 2002: 38). Namely, language not only conveys referential information, but

---

[12] Goffman did note, however, that both verbal and non-verbal communication may be used strategically for the purposes of impression management (1959: 136-7).

can affect others' perceptions of our beliefs, attributes, capabilities, and membership in social groups (Cargile et al., 1994: 211). Language, as a "socially meaningful behaviour", is therefore a core component of impression management (Holtgraves, 2002: 190-1). Importantly, Goffman conceptualises the self as "an interactive construction" (Schriffin, 1994: 102), and acknowledged the potential for individuals to use self-presentational behaviours for the purposes of "misinformation [and]…deceit" (Goffman, 1959: 137; see also DePaulo et al., 1996: 979). This would include linguistic as well as non-verbal behaviours (ibid.). The notions of impression management, face, and facework may therefore prove illuminating when examining the interrelationships between speakers' facework strategies, the credibility criteria, and the context of statement production.

CHAPTER 5: ANALYSIS AND DISCUSSION

5.1 ANALYSING CONTENT IN CONTEXT: PUBLIC APPEALS AS AN ACTIVITY TYPE

5.1.1 SEARCHING FOR ABSENCE: DECEPTION AS A "NON-ACT"

As discussed in Chapter 3, one of the fundamental goals of investigative interviewing is to elicit maximum information about the "alleged event/s" (Kapardis, 2014: 128; see also Yuille et al., 1993). As such, a witness's statement that has been elicited as part of an investigate interview is, in essence, a crime victimisation *narrative* (Whelan et al., 2014), containing details of a particular event or events, insofar as the witness is able and willing to recall and describe them. As an "activity type" (Levinson, 1979), a prototypical investigate interview therefore differs in several respects from the press appeal in terms of both purpose and content. To illustrate:

Table 6.   **Examples of "requesting" from statements.**

Speaker	Example
Tracie Andrews	15 **please just tell us who he is** because you won't get in any trouble at all it is not 16 *your fault*
Karen Matthews	4 **whoever's got Shannon just please let her** go her family's missing her all her 5 *friends are missing her at school*
Mick Philpott	24 **Please I beg you leave us alone and let us try and grieve in peace and quiet** *that's all* 25 *I ask thank you*
Stuart Hazell	174 *Tia* **come home baby come on come and eat your dinner** *I want my ten pound back*
David Sharp	2 *...anyone who knows where she is or any information* **please come to us come phone** 3 **the police anything**
Danielle Wilson	7 *...please darling* **just do anything text me ring me** *erm* **send me a** 8 **message** *I've sent you a message on Facebook erm* **just do anything**
Martin Stammers	5 *...***please keep posting please keep tweeting please keep re-tweeting**
Ian Fyles	14 *...let's just say to anybody watching erm if you've* 15 *seen Jason or you think you know where he is then* **please don't hesitate to contact** 16 **the police**

As shown above, every statement in the dataset (regardless of veracity) contains at least one instance of a particular speech act (Searle, 1969: 66): that of "requesting" (in this case, in the imperative mood). As noted in Chapter 4, activity types (such as a press appeal) may "impose constraints" on participants' "allowable contributions" (Levinson, 1979: 368). In this case, we may consider that the activity type of a press appeal constitutes the *macro-speech-act of* "request":

> …we may utter several sentences and thereby, at least at a more global level, accomplish one speech act. We may promise, warn, state, congratulate or accuse by uttering a whole discourse. […] In such cases, then, it is assumed that we accomplish what may be called a *macro-speech-act*.

van Dijk, 1992: 99

Unlike in investigate interviews, then, the overarching goal of participants' in these press appeals is to make a request (or several related requests) for information, support, and/or the safe return of the missing person. As shown below, some of the press appeals also included expressions of gratitude for support and relevant information received thus far:

Table 7. **Examples of "thanking" in statements.**

Speaker	Example
Mick Philpott	1 ***first of all I want to thank*** my three eldest children because they are helping us to 2 *cope with what's going on and then there's a young lad called Daniel Stevenson* 3 *who tried to get in the house the same as myself erm Joe across the road and and* 4 *the Butler brothers and of course the poor firemen the police the ambulances the* 5 *doctors the nurses literally everybody whos' who tried to help save our children*
David Sharp	3 *…and **I want to say thank you** to the police for doing* 4 *everything that they can and the public for being our support and being out there* 5 *day and night*
Martin Stammers	3 *all of us her family her close friends are striving so hard so **I'd like to thank all of*** 4 ***them thank the people who are supporting us** out there on social networks*
Ian Fyles	12 ***we'd like to take this opportunity to thank all of Jason's friends students lecturers at*** 13 *Newcastle University for all their warmth help and support **we really appreciate all*** 14 ***the efforts you've done for us***

Importantly, however, in all of the clips classified as truthful (Sharp, Wilson, Stammers, and Fyles) and in some of the clips classified as deceptive (Matthews and Philpott), speakers did not present a prototypical narrative or *story* in the sense of relaying a pre-existing "chain of actions and events" (Virtanen, 1995: 505). In addition, and perhaps most importantly, the aforementioned speakers did not describe incidents in which they themselves were *victims* of criminal acts – and CBCA was specifically designed to be

applied to (sexual)[13] victimisation narratives (Köhnken, 2004; Vrij, 2008). The absence of crime victimisation narratives in the activity type of a press appeal therefore meant that many credibility criteria became less relevant.

The application of the adapted criteria becomes noticeably problematic when used to analyse public appeals. Many of the adapted criteria involve identifying features which are *absent* rather than present (such as a *Lack of Interactivity*, Criterion 5, or a *Lack of Personal Credibility/Memory Slurs,* Criterion 6). In many instances, however, it appears these features are absent simply because they are not typical contributions for this activity type. Adapted Criterion 5 is fulfilled if the statement is devoid of information pertaining to interactions between the witness, the perpetrator, and others. The credibility criteria upon which the adapted Criterion 5 is based (specifically, Criterion 5, *Descriptions of Interactions,* and Criterion 6, *Reproduction of Conversation*) are contained within the subcategory *Specific Contents* (Vrij, 2008). As such, they constitute specifications of Criterion 3, *Quantity of Details* (Vrij, 2008). These details pertain to the sequence of events or "story" being recalled and described by the witness – but, in the majority of the statements (6 out of 8), speakers were not telling a story; rather, they were making *requests*. With this in mind, the absence of descriptions of interactions is neither surprising nor significant in this context.

The application of some of the original CBCA criteria to the activity type of a press appeal is also problematic. In relation to Criterion 12, *Accounts of Subjective Mental State*, Köhnken (2004: 51) states that mere descriptions of emotional states, such as fear, or "crime-related cognitions", such as determining how to escape, are not sufficient to constitute *Accounts of Subjective Mental State* (see also Vrij, 2008). Instead, witnesses must describe the "development and change of emotions and/or cognitions *during the event*" (Köhnken, 2004: 51; emphasis added) or "while the *event was in progress*" (Vrij, 2008: 210-211, emphasis added). As noted in relation to Criteria 5 and 6, however, the majority of speakers in the dataset are not describing an event at all. Matthews, for

---

[13] There is still considerable debate within the literature about the kind of data to which CBCA should be applied. Some argue that the method should be used solely to evaluate children's statements in sexual abuse cases (Honts, 1994; Horowitz et al., 1997); others believe that it can be equally effective when applied to statements by adults, and/or to statements containing descriptions of issues unrelated to sexual abuse/victimisation (Köhnken, 2004; Köhnken et al., 1995; Porter and Yuille, 1995).

instance, does discuss the development of her thoughts about the identity of Shannon's alleged kidnapper: *well **I think** somebody out there will know Shannon **I suppose** they'll probably know me as well* (lines 7-8), and ***it makes me think now I can't trust people who's really close to me any more I just can't trust them*** (lines 10-11). However, the development of her cognitions remain unconnected to an underlying "story".

This applies equally to some of the statements classified as truthful. Danielle Wilson, for instance, describes her mental state: *I'm **in pieces** and I just want you home* (lines 1-2). However, like Matthews, this content feature of Wilson's statement is not embedded within a description of a past event. According to the guidelines offered by Köhnken (2004) and Vrij (2008), then, Criterion 12 would not be considered present in these cases. However, its absence is not indicative of deception, but is a product of the activity type in which the statements were produced.

The application of CBCA Criterion 1, *Logical Structure*, and its adapted counterpart, *Lacks Coherence*, pertains to the coherence and (semantic[14]) consistency of a witness's account (Köhnken, 2004; Lansley, 2017; Vrij, 2008). However, these criteria become noticeably problematic when applied to the activity type of a press appeal. Namely, many of the statements (such as those produced by Matthews, Philpott, Sharp, Wilson, Stammers, and Fyles) are unlikely to be incoherent or inconsistent – not necessarily because they are truthful, but because the speakers are making requests rather than describing specific incident or incidents. As such, the inclusion of contradictory details in these statements is rather unlikely. The diagnostic significance of Criterion 1 is therefore minimal when applied to this kind of data.

---

[14] To the best of my knowledge, the concepts of coherence and consistency – how they are defined, and how we might go about identifying and measuring them – are not explicitly described in CBCA literature (see, for example, Köhnken, 2004 and Vrij, 2008). It appears, from the accompanying description for Criterion 1 supplied in Vrij (2008) and in Köhnken (2004), that analysts conceptualise both coherence and consistency as primarily semantic phenomena, i.e., as relating to the "logical relations between propositions" (Palmer, 1981:198) in a given discourse. With regard to consistency, for example, we may deem a statement to be semantically consistent to the extent that "each sentence [is] consistent with previous sentences, i.e., [...] they can all be true in the same state of affairs" (Reinhart, 1980:164). The concept of coherence has no unified definition within linguistics, however, and scholars continue to debate the characteristics or dimensions of textual coherence (Palmer, 1981; Reinhart, 1980).

Correspondingly, *Unstructured Production* (Criterion 2) – and its adapted counterpart, *Linear (in time), Overly Structured Reproduction* (Criterion 2) – relate to the chronology of a witness's account. Specifically, it is argued that unstructured, non-chronological narratives "are extremely difficult without any genuine memories" (Köhnken, 2004: 49), and that fabricated accounts are "often produced in a linear, 'train-track' format" (Lansley, 2017: loc. 1001). However, it is difficult – if not impossible – to ascertain chronology in statements which do not contain descriptions of events. As Whelan (2012: 27) notes, a key disadvantage of CBCA when applied to public appeals is that its successful application relies upon lengthy and detailed narratives about an event or sequence of events (whether these are fabricated or based on real-life experience). Public appeals for missing people, and sometimes forensic investigations more generally, typically lack this feature (ibid.).

Where speakers *do* include descriptions of events – such as Tracie Andrews – the relative impact of the criteria may still be affected by nature of the context or activity type. In a public appeal, speakers may well be expected or even asked to present a structured version of events for ease of interpretation on the part of the viewer. The last known movements of the missing/deceased person are thus effectively "reconstructed" so that viewers are able to temporally and/or spatially locate the described events to determine if they possess relevant or useful information to present to the authorities. Hence, a chronological narrative may simply be a product of the activity type, rather than a reflection of deceit on the part of the speaker(s). In addition, Vrij (2008: 209) argues that CBCA's Criterion 2 is "less useful" if the witness has given a particular statement multiple times or has "frequently thought about the event", since this will result in "telling a story in a more chronological order". In the context of public appeals and press interviews, it is entirely likely that both truthful and deceptive speakers will think carefully about what they intend to say. Indeed, it is not uncommon for speakers to read a pre-written statement aloud (as in Fyles' press appeal, for instance) – potentially resulting in a more structured delivery.

These examples illustrate the difficulties associated with using what is essentially a method for the "detection of the truth" (Köhnken, 2004: 41) in order to detect lies. The

absence of truth – or, more specifically, the absence of content characteristics associated with truth – does not equate to evidence of fabrication (ibid.). The broader SCAnR method does account for this by paying close attention to (micro and macro) contextual factors (Archer and Lansley, 2015): coders are briefed *not* to count (the absence of) such content features as PInS if they can feasibly be explained with reference to the context in which the speech event occurs (as well as the individual account and the person's baseline behaviour).

It is worth considering, however, whether amending pre-existing CBCA criteria in this way is advisable, given that the abovementioned analysis demonstrates many of these content features to be context-specific – thus meaning that they lose their diagnostic efficacy when applied to a different activity type than that for which they were designed. In particular, a key problem associated with applying both sets of criteria to this activity type is that deceptive testimony becomes implicitly conceptualised as *that which lacks credibility criteria.* Deception thus becomes a "non-act" (Eelen, 2001: 98), analogous to the way that impoliteness is sometimes defined as the mere absence of politeness, consisting in "not doing something" (ibid., p. 99) rather than doing something.

5.1.2 DETERMINING THE IMPACT OF CRITERIA

While the above analysis demonstrates that the majority of appeals in this dataset did not contain crime victimisation narratives, there were several exceptions to this. Tracie Andrews, for example, was not appealing for the return of a *missing* person so much as appealing for information that would allow her to locate her boyfriend's alleged murderer and his accomplice. Correspondingly, her appeal did indeed contain a description of her version of events: she described her boyfriend Lee and the driver of the other vehicle *playing cat and mouse with each other for a while* (lines 1-2), and stated *I got out the car and then I went over to the er man we had a confrontation and he hit me I can't remember I fell to the floor I can't remember if I was knocked out for a bit I don't know* (lines 4-7). In addition, when describing the role of the driver in the alleged incident, Andrews states: *the er driver…walked off **it was nothing to do with the driver** and all I want to say is please will the driver of the car just come forward because **you are not to blame** for this*

*and I know that [...] please just tell us who he is because you won't get into any trouble at all **it is not your fault*** (lines 11-16).

Criterion 18, *Pardoning the Perpetrator*, is considered to be present if the witness "excuses the alleged perpetrator for his or her behaviour or fails to blame the alleged perpetrator" (Vrij, 2008:211). While Andrews does not excuse the behaviour of the alleged murderer, she specifically and repeatedly excuses the behaviour of his alleged accomplice: she assures the driver, for example, that he is *not to blame* (lines 12-13), that he *won't get into any trouble at all* (line 15), and that Harvey's death is *not [his] fault* (lines 15-16). How, then, do we account for the presence of a credibility-related content characteristic in a statement which has been fabricated?

Returning to the notion of activity type, we may see that Criterion 18, *Pardoning the Perpetrator*, is relevant to the activity type of an investigative interview about child abuse, given research into Child Sexual Abuse Accommodation Syndrome[15] (CSAAS) (Summit, 1983) and Stockholm Syndrome[16] as it relates to domestic and sexual abuse victims (see, for instance, Jülich, 2005). Such phenomena are generally more likely to apply to those individuals (whether hostages or domestic/sexual abuse victims) who have been "subjected to ongoing contact" (Jülich, 2005:109) with perpetrators for a "prolonged period of time" (ibid., p.120; see also Graham, 1994), and not to victims of singular incidents of violent crime – as Tracie Andrews would have been, if her account were true. If we take into account contextual details of the individual criminal case, the presence of Criterion 18 in Andrews' statement is somewhat unusual: Andrews alleged she and her partner Lee Harvey had been subjected to an aggressive *cat and mouse* car chase,

---

[15] CSAAS is a syndrome described by Summit (1983) which outlines how he believes how children respond to prolonged sexual abuse. One aspect of CSAAS involves "accommodation" (p.9) on the part of the abused child, in which s/he develops a "delusionally" positive view of the abusive adult in order to reconcile his/her need for safety and security with the frightening and painful experience of sexual abuse.

[16] Stockholm Syndrome was originally defined as the emotional bond formed between hostages and their captors (Goddard and Tucci, 1991; Graham, 1994). However, research has since discovered that a similar phenomenon occurs to different groups, such as incest victims, physically/emotionally/sexually abused children, domestic violence victims, and concentration camp victims (Graham, 1994:33). In all cases, sufferers share certain characteristics: 1) they perceive a threat to their survival; 2) they interpret some of the perpetrators' actions as evidence of kindness; 3) they are isolated and unexposed to perspectives other than that of the abuser/captor; and 4) they perceive that there is no way to escape (ibid., see also Julich, 2005:112).

culminating in an assault upon herself and the murder of Lee Harvey. Given how quickly the incident was said to have progressed and the fact that the perpetrators were strangers rather than individuals known to Andrews and Harvey, Andrews forming an emotional bond with one of the perpetrators (and subsequently pardoning his behaviour) would have been rather unlikely. When we consider the specifics of this criminal case, then, Criterion 18 is less useful in distinguishing between truthful and fabricated statements.

In addition, it is important to acknowledge that extant literature into CBCA does not address how one might interpret or apply this criterion if there are multiple perpetrators, all of whom have committed crimes of varying degrees of severity. An analyst may, for example, view Andrews' utterance as *discounting **a*** perpetrator rather than *pardoning **the*** perpetrator. In this instance, however, I have opted to consider the (fictitious) driver as a perpetrator, given that he has allegedly: a) instigated a dangerous, high-speed car chase, b) witnessed a murder, c) enabled the alleged murderer to escape the scene, and d) failed to report that murder. In addition, I have interpreted the criterion as present given that Andrews explicitly exonerates the aforementioned perpetrator of blame (even though he would arguably not be blameless, either personally or legally, if this account were true). This issue not only highlights difficulties with determining the impact of individual criteria in *this* activity type, but also with interpreting how these criteria are to be understood and applied in *any* activity type – including interviews.

One statement in this dataset – that of Stuart Hazell – was elicited as the result of an interview, and therefore also contained descriptions of events. However, this was a press interview, and was thus still a different activity type to an investigative interview. As discussed in Chapter 3, investigative interviews place strict limitations on the contributions of the interviewer, such that s/he is expected to i) avoid leading questions, and ii) encourage free narrative on the part of the interviewee (Vrij, 2008). By contrast, the press interview in this dataset appears to have no such restrictions on the interviewer's allowable contributions (Levinson, 1979: 368), and this had an effect on the diagnostic usefulness of some of the criteria.

For instance, on lines 36-37 of Stuart Hazell's statement, he includes Criterion 6, Reproduction of Conversation: *er she said **er goodbye I said well so make sure you're back at six** she went **yeah yeah yeah.*** However, as indicated by the keystroke symbols on line 35 of this transcript, the footage immediately prior to Hazell's reproduction of speech has clearly been edited. The presence of this criterion may therefore have been prompted by a question from the interviewer. A question such as *What did Tia say before she left the house?* contains a presupposition that Tia spoke at all, for example. Without access to the unedited footage, however, it is difficult to ascertain whether and to what extent the appearance of this criterion was due to the interviewer's use of presuppositions or leading questions. If this was the case, it may help to explain why Hazell's reproduction of Tia's speech – specifically, the word *goodbye* – sounds rather stilted and formal for such a young girl.

Furthermore, the adapted Criterion 1, *Lacks Coherence*, appears to be present in Hazell's statement: on lines 64-65, Hazell states that Tia was not carrying anything with her when she left the house: ***she didn't have nothing** no she didn't have **nothing on her at all**.* This appears to constitute an instance of inconsistency (albeit a small one), given that Tia would not have been able to purchase shoes had she not taken any money with her – a fact which is immediately noticed and commented upon by the interviewer: *so how was she going to buy the flip flops* (line 67). However, it is important to pay close attention to the wording of the question posed by the interviewer: when asking Hazell if Tia had *anything with her*, the interviewer specifically mentions *bags* as an example: *what what else did she was she carrying bags did she have anything with her* (line 63). The inconsistency in Hazell's response may therefore be attributed to him focusing upon this aspect of the interviewer's question; namely, Hazell may have been referring specifically to bags when he stated that Tia *didn't have nothing on her at all,* rather than to smaller items like money.

The use of edited footage is also particularly relevant to those credibility criteria which are dependent upon the spontaneity of speakers' descriptions, such as Criterion 14, *Spontaneous Corrections,* or Criterion 15, *Admitting Lack of Memory* (with regard to the latter, analysts are advised not to consider this criterion present if the admissions are

prompted by a question from the interviewer). In Stuart Hazell's statement, on lines 15-16, Hazell apologises for an error and makes a self-correction in relation to the order in which he performed household chores: *I've gone upstairs I've got the washing **sorry I've I've done the hallway there I've gone upstairs.*** In addition, on lines 111-112, Hazell states that he and his girlfriend went straight to Natalie's house after searching for Tia at the funfair. Subsequently, however, he corrects himself, stating that they actually stopped at home before going to Natalie's house in case Tia had returned: ***no we went from the funfair we come back home*** *and **then we went to Natalie's straight from there** because we thought she might have like come back (*lines 113-115).[17] Although both of the self-corrections identified above appear to have been part of an extended description produced by Hazell (and thus contain no obvious interruptions or indications of editing), it is impossible to be certain about how spontaneous these admissions were given the nature of the data. In addition, Tracie Andrews admits a lack of memory on lines 4 to 7 of her statement: *I went over to the er man we had a confrontation and he hit me **I can't remember** I fell to the floor **I can't remember** if I was erm knocked out for a bit **I don't know***. Once more, this feature does not appear to be interrupted; however, without access to the press appeal in its entirety, we cannot be sure if Andrews was asked a question or questions which may have somehow prompted her admission.

The examples outlined above demonstrates that making overall judgments of credibility becomes difficult when analysts do not or cannot utilise information about the context of statement production, given that this information is an important factor in interpreting the diagnostic significance or "weight" of individual criteria (Akehurst et al., 2011: 242). Without reference to the activity type in which the statements were produced, credibility judgments would become heavily dependent upon the raw score attributed to a given statement – a score which Köhnken (2004: 52), as one of the pioneers of CBCA, argues to be "completely meaningless" when considered in isolation. In addition, it is questionable whether CBCA can reliably be applied to the activity type of a press appeal, or to data which has been retrieved using methods other than investigate/cognitive interviewing (Köhnken, 2004: 57). As noted by Köhnken (ibid.), CBCA was intended to

---

[17] It is worth noting, in addition, that these features occur in portions of Hazell's statement in which he described events which were known and confirmed to be true. For a more detail discussion on the problems associated with detecting partial fabrication, see 5.3.

be applied to statements generated by an interviewer experienced in conducting SVA, and "insufficient interviewing" is likely to adversely affect the quality of the narrative material and, by extension, the diagnostic efficacy of the technique.

5.3 DETECTING INTERSPERSED VERACITY

In the transcript of Stuart Hazell's press interview, parts of his statement are extremely detailed, with CBCA criteria such as *Quantity of Details* and *Contextual Embedding* noticeably present. However, many of these details relate to parts of his account which were known to be true. For example, Hazell states: *we had a meal that night because we went the Co-op we bought these things I bought them for Chris but then Tia ate three of these lollies Nobbly Bobblies and she was going to eat the last one and I said no leave that for your nan* (lines 84-86). This portion of Hazell's statement contains CBCA Criterion 4 (*Contextual Embedding*) and Criterion 5 (*Descriptions of Interactions*), given that Hazell both specifies a particular location (the Co-op) and describes an interaction between himself and Tia. However, his trip to the shop with Tia was indeed corroborated during the trial by CCTV footage from the shop in question.

In addition, Hazell describes his household chores at length on the morning of Tia's alleged disappearance: *she [Tia] doesn't take her washing up out so I took her washing up out erm just started doing like a bit of washing up in the kitchen she was in there she was telling me what she was doing* (lines 6-8). The descriptions of Hazell's performance of chores may well have been truthful, but critical contextual details may have been strategically altered, such as the time or location at which the events occurred. Bond and Speller (2010: 40) and others (Aitchison, 1996; Galasiński, 2000) refer to this phenomenon as "displacement", the former arguing that "temporal displacements" – in which the speaker gives a mostly truthful account of an event, but alters the time at which the event took place – are one of the most common kinds of "gray area messages" (Bond and Speller, 2010: 40. Hazell's use of interspersed veracity could account for the fact that his statement contained the most credibility-related content characteristics across the entire dataset, despite the fact that he was later found guilty of the murder of Tia Sharp.

McGlone and Knapp (2010: xiv) argue that the concepts of truth and deception are all too often understood as "dichotomous" within deception and deception detection literature (see also Galasiński, 2000: loc. 683). Namely, statements are typically viewed as *either* true *or* false, and those who purposefully produce truthful utterances are being honest, while those who purposefully produce false statements are telling lies. While this "binary approach" (Galasiński, 2000: loc. 683) may apply to some instances of communicative behaviour, it does not apply to all; as noted by Levine and Kim (2010: 17), "truth and deception are not polar opposites". Rather, human interaction is characterised by so-called "gray area messages" in which the boundary between truth and lies is somewhat blurred (Bond and Speller, 2010: 36; see also Bavelas et al., 1990; DePaulo et al., 2003; McCornack, 1997). Speakers may, therefore, base lies "on episodic memories of actual events, altering detail as needed" (Walczyk et al., 2014: 140; see also Sporer and Schwandt, 2007; Leins et al., 2012). The practice of interweaving truthful and fabricated information is referred to as "interspersed veracity" (Bond and Speller, 2010: 38), or else "partial secrecy" (Galasiński, 2000: loc. 683).

For this reason, the diagnostic efficacy of CBCA and the adapted criteria when used in isolation are reduced in instances where the statements under scrutiny are partially (rather than wholly) fabricated. A "blanket" approach which applies criteria to the entire statement and affords it an overall credibility score does not acknowledge, or account for, the possibility of interspersed veracity. As such, the diagnostic efficacy of the criteria in differentiating between truthful and fabricated statements are reduced.

5.4 Impression Management: Concerns vs. Strategies

According to CBCA's underlying hypothesis relating to *Motivation-Related Content,* deceptive speakers would typically be motivated to avoid *Pardoning the Perpetrator* in their statements, given that this feature constitutes a "contrary-to-truthfulness" stereotype (Ruby and Brigham, 1998). That is to say, it is assumed that a truthful speaker will not be "as concerned with impression management as a deceiver" (Vrij, 2015: 9), and that

> …compared to truth tellers, deceivers will be more keen to construct a report which *they believe* will make a credible impression on others, and with leave out

information which, *in their view,* will damage their image of being a sincere person.

Vrij, 2015: 9 (emphasis mine; see also Köhnken, 1999)

Despite this, Criterion 18 was present in Tracie Andrews' statement, even though she was lying: *the er driver er walked off* **it was nothing to do with the driver** *and all I want to say is please will the driver of the car come forward* **because you are not to blame for this and I know that** […] *please just tell us who he is because* **you won't get into any trouble at all it is not your fault** (lines 11-16). Andrews should theoretically have been aware that *Pardoning the Perpetrator* would likely undermine her attempts to construct a credible impression by contradicting stereotypes about truthfulness, and should therefore have omitted it entirely. She did not do so, however. If Andrews purposefully included this feature in her fabricated statement, then we must consider why she might have done so.

One explanation may be that she was attempting to construct not just a general impression of credibility, but a specific impression of "goodwill" (Gass and Seiter, 2016: 81). Research into social influence, persuasion, and compliance gaining suggests that goodwill – defined broadly as "perceived caring" (ibid.; see also McCroskey and Teven, 1999) – is a primary component of credibility as a construct; therefore, the more you demonstrate "goodwill" in the form of "understanding [and] empathy" (Gass and Seiter, 2016: 81), the more credible you appear to be. Further, and as noted by North (1998: 20), the concept of forgiveness is often conceptualised as having a "giftlike quality", in that it is typically "outward-looking and other-directed" (pg. 19). For this reason, the act of offering forgiveness is often interpreted as indicative of positive personality traits such as "trust, compassion, and sympathy" (pg. 34) – in short, goodwill. Andrews, then, may well have been motivated by credibility-related impression management *concerns*; she may have, however, opted to adopt a different impression management *strategy* than the one outlined as part of Criterion 18 (namely, avoidance of this particular "contrary-to-truthfulness stereotype"). If we pay close attention to the italicised portions of the above quotation from Vrij (2015), we may observe that the use or avoidance of "contrary-to-truthfulness stereotypes" (Ruby and Brigham, 1998) is a *perceptual* process. That is to

say, individuals base their communicative choices upon their own beliefs and views about precisely what constitutes "credibility" *within a particular context*.

Similarly, it is assumed that truthful speakers will more readily admit to lack of memory as they are less concerned with impression management than deceptive speakers (CBCA Criterion 15). If this is the case, then the question arises: why does Andrews repeatedly assert her inability to remember certain details of the incident even though she is lying? To illustrate: *I went over to the er man we had a confrontation and he hit me **I can't remember** I fell to the floor **I can't remember if I was erm knocked out for a bit I don't know*** (lines 5-7).

A potential explanation is that Andrews may simply have been attempting to strategically provide viewers with an effective, "ready-made" excuse for her lack of memory; that is, one which could be attributed to physical injury and not to the cognitive difficulties associated with fabricating a plausible story. Alternatively, she could have been attempting to elicit a measure of sympathy from her audience. Clark (1997: 84) notes that the most common triggers for sympathy involve an "underlying element of bad luck, or victimization by forces beyond a person's control". Most notably, she pinpoints "physical abuse [and] crime victimization" as problems likely to elicit a sympathetic response (Clark, 1997: 83). Andrews' admission of her lack of memory, then, may have been an attempted "bid for sympathy" (Jefferson, 2015: 190), given that her apparent forgetfulness was attributed to her being assaulted so aggressively that she was "knocked out" (line 7).

In relation to the latter explanation, we may draw upon Goffman's conceptualisations of *face* and *facework*. As previously discussed in Chapter 4, Goffman defines *face* as "the positive[18] social value a person effectively claims for himself by the line others assume

---

[18] Importantly, however, researchers have subsequently critiqued Goffman's definition in relation to his emphasis on "positive" social attributes. As noted by Culpeper (2011: 25), "attributes can be evaluated differently by different people…what might be evaluated negatively for some might not be by others, or even might be considered positive". While victimhood is generally seen as a negative attribute, Andrews may nonetheless have viewed the self-image of *victim* as positive in this particular context, given that victims are generally associated with innocence rather than guilt.

he has taken during a particular contact" (1967: 5). Goffman's understanding of a *line* is of particular importance here: when interacting with others, an individual behaves according to

> …a pattern of verbal and nonverbal acts *by which he expresses his view of the situation and through this his evaluation of the participants, especially himself.* Regardless of whether a person intends to take a line, he will find that he has done so in effect. The other participants will assume that he has more or less willingly taken the stand, so that if he is to deal with their response to him he must take into consideration the impression they have possibly formed of him.

> Goffman, 1967: 5 (emphasis added)

From this, we understand that an individual attempts to manage others' impressions by projecting a particular self-image – once which is based upon "whom [the individual] (thinks he) is and…*whom he would like others to think he is*" (Arendholz, 2013: 67, emphasis added). This portrayal is achieved through the line he takes; that is to say, the type and pattern of verbal and non-verbal behaviours he employs in interaction. According to Goffman, an individual maintains face through ensuring that there is continuity or agreement between his self-image and his communicative behaviours (i.e., the *line* he has taken). In this case, Andrews appeared to be projecting the (self) image of *victim* – and, in order to maintain face, she communicated in a way which *she believed to be* consistent with the image of victimhood. Specifically, she opted to describe an assault which potentially caused her to (temporarily) lose consciousness (*he hit me…I fell to the floor*, lines 5-6) and thus, by extension, her memory of the events (*I can't remember if I was erm knocked out for a bit I don't know,* lines 6-7*)*. Andrews' inclusion of this particular content characteristic may therefore be attributable not to the truth or falsity of her account, but to Andrews' own perception of her self-image (in terms of how she wanted to be recognised by others), the situation, and her role within that situation (Watts, 2003: 124). The impression management strategy she ultimately chose, then, may have been one which she felt was congruent with her portrayed status as victim.

It is important to note, as highlighted by Vrij (2008: 108), that focusing on the diagnostic efficacy of individual criteria, such as those detailed above, is "searching for the verbal

equivalence of Pinocchio's growing nose, which does not exist". Looking at "clusters" (ibid.) of these cues yields far greater accuracy (see also Archer and Lansley, 2015; Lansley, 2017). However, the examples outlined above draw attention to a particular shortcoming of all five CBCA criteria subsumed within the category of *Motivation-Related Content* (Criteria 14-18): even if speakers share the same motivations, those motivations will not necessarily manifest as identical or even similar impression management strategies. To use Goffman's terminology, individuals may attempt to portray a similar *self-image* (of, for instance, credibility), but this does not necessarily mean they will *take the same line* – particularly since that line is generally formulated in accordance not just with self-image, but also with how the individual *perceives* both the context and his or her interlocutors (Watts, 2003: 124). Interestingly, Vrij (2008: 230) notes that criteria categorised as *Motivation-Related Content* have received less support in CBCA research than most cognitive criteria (namely, Criteria 1-13 and 19). Certain contextual elements may help to explain why one impression management strategy is selected over another, but such elements are not incorporated into analysis when CBCA and the adapted criteria are removed from their wider methodological frameworks (Vrij, 2008: 214).

5.5 CODING IMPLICIT MEANING

As noted in Chapter 4, both CBCA and the adapted criteria focus on verbal content characteristics, and are thus best equipped to analyse explicit meaning (Vaismoradi, Turunen and Bondas, 2013). However, adopting this approach in the current work led to difficulties in analysing more indirect expressions of meaning, or "implicit communicative content" (Levinson, 1983: 15). In relation to Criterion 12 (*Accounts of Subjective Mental State*), for example, there were variations in how explicit speakers were when referencing their emotions or cognitions. Compare the following examples:

Table 8. Explicit and implicit accounts of mental state

Speaker	Example
Stuart Hazell	91 *I was getting a bit concerned* well Tia was meant to be home at six *we was getting a* 92 *bit concerned* about seven
Karen Matthews	1 well *it's hard to sleep* really it's just *the house just doesn't feel the same without* 2 being here not being there really it just *it just feels empty*
Danielle Wilson	1 I just want to give a message to my daughter sorry sweetheart I don't care what 2 you've done or why you can't tell me *I'm in pieces* and I just want you home

Hazell talked unambiguously about his anxiety when he stated that he *was getting a bit concerned*. By contrast, Matthews described her difficulty sleeping and the atmosphere of emptiness in the family home. In doing so, Matthews generated what Grice (1975: 45) referred to as a "conversational implicature": that is, an implied meaning which is "particularized" (Thomas, 1995: 58) to its context of utterance. In this case, we may infer from Matthews' description – given that it was uttered as part of a press appeal for her missing daughter – that her difficulty sleeping and a feeling of "emptiness" stemmed from her negative emotional state in the wake of her daughter's disappearance.

Grice (1975) also conceptualised metaphorical speech as one form of implicature, since metaphors are based upon non-literal meaning. As shown above, Wilson described her emotional state metaphorically, by stating that she was *in pieces*. An exclusive focus on manifest content – namely, on instances where the speaker *explicitly* references developing cognitions and/or emotions – may lead the analyst to conclude that Criterion 12 is present in Hazell's statement, but not in Matthews' or perhaps even Wilson's. In relation to the adapted criteria, the analyst may similarly conclude that Matthews' and/or Wilson's statements *Lack Accounts of Mental States* (Criterion 7). However, explicit accounts of emotional state do not necessarily appear to be indicative of truthfulness. Rather, they may reflect a level of individual variation in the way speakers are willing or able to express themselves on this topic: some communicate about emotions explicitly (Hazell), whereas others rely upon implied meaning and metaphorical expressions (Matthews and Wilson).

To the best of my knowledge, whether and to what extent SVA as a broader procedure accounts for latent content/implied meaning is not addressed in the literature. As an isolated procedure, however, CBCA seems to deal exclusively with manifest content, given that its implementation measures only the frequency outcomes of content characteristics in order to generate a simple "raw score" (Köhnken, 2004: 52). In addition, developing an understanding of latent content necessitates a focus on the context in which a statement was produced (Manning and Cullum-Swan, 1994; Tashakkori and Teddie, 1998) – a process which is largely absent from CBCA and its adapted counterpart. For this reason, the distinction between manifest content and speaker meaning is of particular

relevance to using credibility criteria in isolation. Specifically, limiting the analytic focus to explicit accounts of mental state means that any relevant implicatures generated by speakers are overlooked or ignored. Ball and Smith note the following:

> …excessive emphasis on standardized technique can result in reliability being bought at the expense of validity. The significance of the communicative message may lie less in its manifest content than in the context in which it occurs.
>
> Ball and Smith, 1992:27

In addition, as noted by Joffe and Yardley (2004: 56), "since symbolic data can always be looked at from different perspectives, the claim that one is analysing *the* content is untenable […] messages do not have a single meaning waiting to be unwrapped" (emphasis original). By simply focusing on one aspect of content – that which has been made explicit – CBCA overlooks underlying or implicit meaning within a given narrative. When the adapted criteria are used as part of SCAnR, coders are briefed to consider not just verbal content but cues within and across multiple communicative channels, and this includes paying attention to what is implicit as well as explicit (Archer, 2017, personal correspondence).

CHAPTER 6: CONCLUSION

6.1 CONCLUDING REMARKS: REVISITING THE RESEARCH PURPOSE

The present study has sought to contribute to discussions relating to the diagnostic efficacy of a particular method of credibility assessment, Criteria Based Content Analysis. In particular, the over-arching research goal was to determine the diagnostic efficacy of the original and adapted criteria on a particular kind of dataset: public appeals for missing people. The analysis revealed that many of the criteria were problematic to interpret or attribute for a number of reasons. Chapter 5 focused upon identifying key issues or themes which caused difficulties with the application of both sets of criteria.

One of the most pertinent issues identified in Chapter 5 was related to the influence of micro and macro contextual factors on the diagnostic usefulness or relevance of the original and amended criteria. The analysis revealed, for example, that press appeals as an activity type differ significantly from investigative interviews, both in terms of participants' discourse purpose and, correspondingly, their speech content. Most strikingly, the majority of statements in the dataset (6 out of 8) lacked any sort of crime narrative, instead focusing on the (*macro-speech-act* of) requesting for information or the safe return of the missing person. The issue of analysing "content in context" (Blair et al., 2010: 423) is therefore particularly pertinent when it comes to interpreting criterial *absence*. In particular, there are difficulties associated with applying some of the experimental adapted criteria in isolation: 5 out of 7 of these criteria involve identifying *a lack of* content characteristics associated with truth. Importantly, however, the absence of said content characteristics within this dataset did not necessarily reflect statement veracity. Rather, their absence could be explained with reference to the public appeal as an activity type, and its expected/allowable contributions (Levinson, 1979: 368).

This relates to previous discussions about the problems associated with conflating methodological approaches to truth detection/credibility assessment and lie detection. Specifically, a lack of credibility-related content characteristics in and of itself does not constitute evidence of fabrication, an issue which is acknowledged by the originators of

both SVA and SCAnR (Köhnken, 2004; Archer and Lansley, 2015). Köhnken (2004: 45-6), for example, notes that a low credibility score may be attributable to both personal and situational factors, such as verbal or sensory deficits, forgetting, or poor interviewing techniques. In addition, Archer and Lansley (2015: 257) state that "a lack of evidence is not evidence" – and, further, they recommend against assessing credibility or attempting to detect deception using the "modified, experimental version of CBCA only", given that SCAnR was designed as a "multi-cue, cross-channel approach" which pays close attention to the influence of external factors (p. 235). The results of the current work therefore support the pioneers' arguments that the diagnostic efficacy of both sets of criteria are reduced when they are removed from their wider methodological frameworks (Köhnken, 2004; Steller and Köhnken, 1989; Archer and Lansley, 2015).

However, given that: i) extant research into SVA most often focuses on CBCA, and ii) some research suggests that the Validity Checklist is inconsistently applied (see, for example, Akehurst et al., 2011; Gumpert and Lindblad, 1999; Howitt, 2006), it is difficult to know to what extent these issues are addressed even when applying CBCA as part of SVA. In addition, as discussed in Chapter 5 (section 5.1.1), the results of the current analysis call into question the practice of using (an amended version of) content criteria whose diagnostic usefulness appears to be heavily context-dependent[19].

Secondly, assessing the relative importance/impact of particular CBCA criteria became very difficult within this activity type. In some instances, criteria became less relevant: *Pardoning the Perpetrator,* for example, may be very relevant to victims of prolonged sexual or physical abuse, but is less applicable to victims of singular incidents of crime. When the context of statement production differs markedly from an investigative interview about sexual abuse, then, the usefulness of particular criteria is reduced. In addition, any final credibility judgment would become reliant upon a simple count of criterial frequency, which may not always accurately reflect statement veracity (Köhnken, 2004). In addition, as noted in Chapter 5, it was impossible to determine the

---

[19] Archer and Lansley (2015: 238) do acknowledge that this aspect of their approach "may prove to be the most contentious", but argue that their amended CBCA criteria "is but one component of the SCAnR method". Nonetheless, it is worth considering whether SCAnR could be further developed through the use of verbal content criteria which are more suited to the contexts to which they are applied.

extent to which the content of the edited statements (Andrews, Matthews, and Hazell) were influenced by the editing process. These results support arguments put forth by Tully (1998), Köhnken (2004), and Vrij (2008; 2015) that narrative length and quality influence the diagnostic accuracy of CBCA as a method – and, by extension, the adapted criteria.

An additional issue identified in the present work relates to the concept of partial fabrication or interspersed veracity. When applying both sets of criteria in isolation, experts do not selectively differentiate between disputed and undisputed portions of the statement, for example (Köhnken, 2004: 48); as a result, interspersed veracity may distort the overall credibility score, as in the case of Stuart Hazell. While SVA does address this to some extent through developing hypotheses and selecting "diagnostically relevant" (Köhnken, 2004: 46) portions of the statement for analysis, speakers may potentially interweave truth and lies within the same sentence – making it much more difficult to separate the two for the purpose of analysis. Displacements (Bond and Speller, 2010: 40) may be particularly problematic to detect using content criteria alone, given that deceptive speakers may only need to strategically alter a single contextual detail (such as the identity of the alleged perpetrator, or the time/location of the event) in order to, for example, provide an alibi. When implementing SCAnR, Archer and Lansley (2015) (see also Lansley, 2017) attempt to address this particular issue through ensuring that clusters of PInS are only noted if they occur within a seven-second window after a question or stimulus, such that they can "reasonably conclude that the behaviour is directly associated with the stimulus" (Houston et al., 2012: 30, cf. Archer and Lansley, 2015: 232).

The findings of the current work also identified problems associated with the criteria categorised as *Motivation-Related Content* (Vrij, 2008: 211). Specifically, it appears that these criteria have a common weakness: the (impression management) hypothesis underlying these criteria assumes not just that truthful speakers share the same motivations, but that these motivations will trigger the same impression management behaviours in most individuals (Köhnken, 2004: 49). By contrast, the analysis in the present work revealed that, in some instances, deceptive speakers (such as Tracie Andrews) may include "contrary-to-truthfulness stereotypes" (ibid.) *if they perceive*

those communicative behaviours to be in line with the self-image they are attempting to project *in that context*. To draw upon theories of face and facework (Goffman, 1959, 1967), the line (i.e., pattern of verbal and non-verbal behaviours) that truthful and deceptive speakers choose to take will not necessarily correspond with the characteristics identified as *Motivation-Related Content*, given that their perceptions of themselves within the context of a particular speech event are inherently individualised and subjective.

Lastly, the analysis revealed some difficulties with coding implicit meaning. Within the dataset, there was a level of variation identified among speakers who discussed their emotional/mental state: some speakers made direct statements (such as Stuart Hazell), whereas others relied on implicatures (Karen Matthews) or metaphorical expressions (Danielle Wilson). As a method of content analysis which quantifies the occurrence of particular pre-defined categories, CBCA (and, by extension, the adapted criteria) were designed primarily to analyse what is said explicitly (Gray et al., 2007; Vaismoradi, Turunen and Bondas, 2013). As such, indirect expressions of meaning (such as implicature) – namely, what is *meant* by what is said – are typically not accounted for (Ball and Smith, 1992: 27). Prioritising semantic over pragmatically oriented analysis may increase the method's systematicity and improve inter-rater reliability; however, this may well be at the expense of validity, given that people frequently opt to communicate through indirect expressions, and "conventional content" does not always correspond with speaker meaning (Levinson, 1983: 17). Indeed, this is why Archer and Lansley (2015) pay close attention to the individual's account (as part of SCAnR), including implicatures or things an audience infers from how something is said (Archer, 2017, personal correspondence).

6.2 IMPLICATIONS FOR DECEPTION DETECTION AND CREDIBILITY ASSESSMENT

The analysis and discussion in Chapter 5 have demonstrated that the diagnostic efficacy and/or relevance of both sets of criteria were reduced when applied to the statements in this dataset, for the reasons outlined in 6.1. The problems associated with applying the original and adapted criteria have several noteworthy implications for deception detection and credibility assessment.

Firstly, CBCA criteria were developed based upon (and were designed to be applied to) a very specific type of narrative – that is, to sexual victimisation narratives produced by child witnesses (Köhnken, 1989; Steller and Köhnken, 1989; Soppe, 1995). Some scholars argue that CBCA is equally effective when applied to adults' statements and in cases unrelated to sexual abuse (Köhnken et al. 1995; Köhnken, 2004). However, the results of the current work indicate that the diagnostic efficacy of certain criteria varies according to i) the context/activity type in which the statement was produced, ii) the speakers' discourse purpose, and ii) the nature of the incident being described (if, indeed, an incident is being described at all). This finding highlights the difficulties associated with "data drift" in which "results from studies with one type of methodology and purpose [are] used to support conclusions that [cannot] be made on the basis of that type of data" (Poole and Lindsay, 1998: 10). When assessing credibility and/or detecting deception more generally, then, it is imperative to address whether and to what extent the methods in question are affected by both data type and data retrieval techniques. On a more practical note, this points to a need for incorporating evaluations of narrative quality into methods of deception detection and credibility assessment which focus on language/speech analysis.

Another implication of the current research findings relates to the importance of incorporating an analysis of contextual factors into deception detection and credibility assessment methods (Blair et al., 2010). The originators of both SVA and SCAnR were careful to note that their criteria were never intended to be used in isolation, since their efficacy in distinguishing truth from lies is dependent upon their proper implementation *as part of* the broader procedures (Archer and Lansley, 2015: 231; Köhnken, 2004: 52). While it is argued by some scholars that CBCA is the most standardised stage – and is thus the most worthy of researchers' attention (Granhag and Hartwig, 2012: 156; Rassin, 1999: 268) – a discourse analytic approach to this method offers insight into why all four stages of SVA "should not be dismissed" (Vrij, 2015: 15). Correspondingly, it has highlighted the importance of interpreting particular content features (or a lack thereof) as worthy of investigation only if they cannot be accounted for by external factors (Archer and Lansley, 2015). The implication, then, is that the *uncritical,* de-contextualised application of criteria-based methods in isolation may lead an over-reliance on a

statement's overall "summary score" (Hauch *et al*., 2017: 827), restricting credibility assessment and deception detection to a simple counting exercise.

This issue is particularly important for SVA practitioners: when CBCA is applied as the third of four stage within SVA, the Validity Checklist (as stage 4 of the SVA procedure) is designed to address external/contextual influences (such as interviewing style, or characteristics of the interviewee). However, as previously discussed (see section Chapter 2), some research suggests that practitioners often disregard the impact of the items identified on the checklist (Gumpert and Lindblad, 1999). Ignoring or underestimating the effect of such issues may influence results in much the same way as using CBCA in isolation. That is, interviewees who produce low quality statements due to factors such as age, poor verbal skills, or an inadequately conducted interview are at a disadvantage, given that "their extenuating circumstances" (Vrij, 2008: 248) are not taken into account. In particular:

> Remember that the question to be answered with the help of CBCA is whether or not *this* witness would have been able to fabricate *this* statement with the content qualities identified in the account without having personally experienced the event described […] The same content-analysis results (i.e., the 'raw score') have to be judged different for a young child than for an adult, for a less intelligent, less creative child than for a child of the same age but with better cognitive abilities.
>
> Köhnken, 2004:52

From a theoretical standpoint, conceptual distinctions between truth, deception, and credibility are important issues to consider within deception detection and credibility assessment, given that how we define and distinguish these concepts informs methodological practice. For instance, acknowledging that credibility is a "perceptual phenomenon" (Gass and Seiter, 2016: 77) enables the analyst to recognise the potential variation in communicative behaviours both between individuals and within a single individual across different contexts. As noted by Miller and Stiff (1993: 78), "the possibility that much deceptive behaviour is idiosyncratic is worthy of consideration". SCAnR, for example, incorporates an assessment of the speaker's "baseline" (Archer and Lansley, 2015: 231) – that is, their communicative behaviours when telling the truth

within the relevant context(s) – so that coders do not assume all speakers will produce the same behaviours when lying. In support of this approach, research suggests that an evaluation of the speaker's baseline behaviour can improve deception detection accuracy rates (see, for example, Brandt et al., 1980; Ekman and Friesen, 1974, O' Sullivan et al., 1988).

Lastly, the findings of the current research have implications for the role of linguistics as a discipline within deception detection and credibility assessment research. The analysis demonstrates that concepts from (Gricean) Pragmatics (such as activity type and implicature) and Interactional Sociolinguistics (impression management, face, and facework) can be useful when attempting to understand and interpret deception and truth-telling through linguistic data, particularly with regard to assessing the relationship between linguistic content, speaker meaning, and local and global contextual factors. Further, it is hoped that the arguments developed here will provide an impetus for interdisciplinary dialogue within this field, so that methods of deception detection and credibility assessment might be improved through robust research from all relevant disciplines.

6.3 LIMITATIONS OF THE STUDY

The analysis and discussion presented in the current work is not without certain limitations. As previously discussed (see section 4.2), a reliance upon extant literature in the absence of proper training may have affected my interpretation of how both sets of criteria are, or should be, applied to linguistic data. As one of the pioneers of SVA, Köhnken (2004: 57) strongly advises thorough and rigorous training (in the form of a three-week intensive course) in order to safeguard both the method's efficacy and intra-/inter-rater reliability. However, as noted by Vrij (2008: 230), the recommended length and content of CBCA training courses is "debateable", and it is common for training requirements to vary from study to study. Furthermore, I have not opted to apply the criteria uncritically; rather, I have endeavoured to acknowledge and explicate instances in which attributions of the criteria were problematic.

On a related note, a particular limitation of the current work is that I conducted the analysis alone, rather than opting to compare the judgements of multiple coders. The latter approach is useful for ascertaining the extent to which coders agree in their judgements of credibility, and for establishing the objectivity and systematicity of the method more generally (Vrij, 2005), while the former is often argued to be less formalised and more subjective (Vrij, 2008, 2015). Further, the dataset consists of only eight clips from press appeals; due to the relatively small sample size, my results have limited generalisability. Nevertheless, it is important to acknowledge that, in real-life cases, "it is common practice for only one expert to analyse the transcript" (Vrij, 2008: 213). Furthermore, an in-depth qualitative approach is not without value, for the very purpose of discourse analytic methodology is to identify and explore (some of) the multiple meanings assigned to linguistic data (Burman and Parker, 1993). In particular:

> Although this individualist approach to analysis causes difficulties, particularly in convincing [others]…of the legitimacy of the analysis, it is in its contextual and interpretive sensitivities that the benefits of discourse analysis lie.
>
> Phillips and Hardy, 2002:75

Moreover, the findings of the current work are firmly grounded in the data themselves. Finally, it is important to draw attention to the fact that the present study follows the established research tradition of investigating CBCA (and its adapted counterpart) in isolation (see, for example, Akehurst et al., 2001, 2011; Amado et al., 2015; Blandón-Gitlin et al., 2009; Lamb et al., 1997; Vrij, 2005). I have not used CBCA and the adapted criteria as they were intended to be used – namely, as stages or components of SVA and SCAnR, respectively. Consequently, I cannot comment on the efficacy of these criteria as part of their broader methodological frameworks. However, adopting this approach has offered insight into why the additional stages/components of SVA and SCAnR (in particular, those pertaining to the contextualisation of linguistic data) are essential to enhance their diagnostic accuracy. Further, it has contributed to the ongoing debate about whether or not CBCA should be used outside of the context for which it was designed (see, for example, Honts, 1994; Horowitz et al., 1997; Vrij et al., 2000).

6.4 Directions for Future Research

One of the key findings of the present study relates to the importance of contextualising linguistic data when attempting to detect deception or assess credibility (Blair et al., 2010). In particular, it was established that several of the criteria became less diagnostically useful when applied to data for which they were not designed (namely, adults' statements which did not contain crime victimisation/sexual abuse narratives). For this reason, a particularly interesting line of research to explore would relate to the potential identification of more context-specific truth and deception cues/criteria. Researchers could, for example, conduct – or else drawn upon existing – comparative analyses of truthful and deceptive public appeals (see, for instance, ten Brinke et al., 2011; Whelan et al., 2014), with a view to identifying and examining differences in (verbal and non-verbal) communicative behaviour and developing criteria specific to this context.

Given that the findings of the current work supported the link between narrative quality and the diagnostic efficacy of CBCA (Tully, 1998; Köhnken, 2004; Vrij, 2008, 2015) and the adapted criteria, future research could also attempt to address precisely how narrative quality is (or should be) evaluated for various language-based methods of credibility assessment and deception detection. As Tully (1998) notes, such evaluations are typically left to the professional judgement of the individual practitioner when implementing CBCA or SVA. Research into this area could potentially provide practitioners with relevant evidence-based information about optimal statement length and quality, and how to approach its assessment from a practical standpoint.

Lastly, the analysis revealed that a pragmatically oriented approach is well suited to this topic of study, given its sensitivity to both the interpretive nuances of communication, and to the influence of contextual factors on linguistic content. As Galaśinski (2000:109) notes, "an act of deception is a pragmatic act: a nonovert act of communication that relies on the performance of another act, one that appears to be cooperative". Drawing upon pragmatics as a linguistic sub-discipline therefore enables deception researchers to shift their emphasis from (verbal) content alone to *the relationship between content and utterance function* (ibid., p. ix). A promising avenue for further research would be to develop methods of deception detection and credibility assessment which are grounded

in pragmatics, or else to supplement existing methods with discourse analysis. Such research would foster inter-disciplinary dialogue, and could enhance professional practitioners' understanding of language as an object of study – and, most importantly, as the vehicle through which we tell lies, truths, and everything in between.

REFERENCE LIST

Anderson, P.A. (2004). *Nonverbal Communication: Forms and Functions.* Mountain View, CA: Mayfield Publishing Company.

Archer, D. and Lansley, C. (2015). "Public appeals, news interviews and crocodile tears: an argument for multi-channel analysis", *Corpora*, 10(2), pp. 231-258.

Amado, B.G., Arce, R., and Fariña, R. (2015). "Undeutsch hypothesis and Criteria Based Content Analysis: A meta-analytic review", *The European Journal of Psychology Applied to Legal Context*, 7, pp. 3-12.

Akehurst, L., Köhnken, G., and Höfer, E. (2001). "Content credibility of accounts derived from live and video presentations", *Legal and Criminological Psychology*, 6, pp. 65-83.

Akehurst, L., Köhnken, G., Vrij, A., and Bull, R. (1996). "Lay persons' and police officers' beliefs regarding deceptive behaviour", *Applied Cognitive Psychology*, 10, pp. 461-471.

Akehurst, L., Manton, S., and Quandte, S. (2011). "Careful calculation or leap of faith? A field study of the translation of CBCA ratings to final credibility judgements", *Applied Cognitive Psychology*, 25, pp. 236-243.

Anson, D.A., Golding, S.L., and Gully, K.J. (1993). "Child sexual abuse allegations: Reliability of Criteria-Based Content Analysis, *Law and Human Behavior*, 17, pp. 331-341.

Arendholz, J. (2013). *(In)Appropriate Online Behaviour: A Pragmatic Analysis of Message Board Relations.* Amsterdam: John Benjamins.

Arntzen, F. (1970). *Psychologie der zeugenaussage: Einführung in die forensische aussagepsychologie* [Psychology of eyewitness testimony: Introduction to forensic psychology of statement analysis]. Göttingen, Germany: Hogrefe.

Austin, J.L. (1962). *How to do things with words.* Oxford: Oxford University Press.

Ball, M.S. and Smith, G.W.H. (1992). *Analyzing Visual Data.* London: Sage Publications.

Baumeister, R.F. (1982). "A self-presentational view of social phenomena", *Psychological Bulletin*, 91, pp. 3-26.

Bavelas, J.B., Black, A., Chovil, N., and Mullett, J. (1990). *Equivocal communication.* Newbury Park, CA: Sage.

Bhatt, S., Mbwana, J., Adeyamo, A., Sawyer, A., Hailu, A., and VanMeter, J. (2009). "Lying about facial recognition: An fMRI study", *Brain and Cognition*, 69(20), pp. 382-390.

Bitgood. (2012). *FULL INTERVIEW ITV News Murderer Stuart Hazell who pleaded innocence Exclusive (high quality).* Available at: <https://www.youtube.com/watch?v=nZe4Po7EuAc> Last accessed 14/06/2017.

Blair, J.P., Levine, T.R., and Shaw, A.S. (2010). "Content in context improves deception detection accuracy", *Human Communication Research*, 36, pp. 423-442.

Blandón-Gitlin, I., Pezdek, K., Lindsay, D. S., & Hagen, L. (2009). "Criteria-Based Content Analysis of true and suggested accounts of events", *Applied Cognitive Psychology*, 23, pp. 901–917.

Bond, C.F. and Atoum, A.O. (2000). "International Deception", Personality and Psychology Bulletin, 26, pp. 385-395.

Bond, C.F. and DePaulo, B.M. (2008). "Individual differences in judging deception: accuracy and bias. *Psychological Bulletin*, 134, pp. 477-492.

Bond, C.F., Kahler, K.N., and Paolicelli, L.M. (1985). "The miscommunication of deception: An adaptive perspective", *Journal of Experimental Social Psychology*, 21, pp. 331-345.

Bond, G.D. and Speller, L.F. (2010). "Gray Area Messages". In: M.S. McGlone and M.L. Knapp, *The Interplay of Truth and Deception: New Agendas in Communication*, pp. 35-53. London: Routledge.

Bousfield, D. (2008). *Impoliteness in Interaction.* Amsterdam: John Benjamins.

Boychuk, T.D. (1991). *Criteria-based content analysis of children's statements about sexual abuse: A field-based validation study.* Unpublished doctoral dissertation, Arizona State University.

Brandt, D.R., Miller, G.R., and Hocking, J.E. (1980). "The truth-deception attribution: Effects of familiarity on ability of observers to detect deception", *Human Communication Research*, 6, pp. 99-110.

Brown, G. and Yule, G. (1983). Discourse Analysis. Cambridge: Cambridge University Press.

Bruck, M. and Ceci, S.J. (1999). "The suggestibility of children's memory", *Annual Review of Psychology*, 50, pp. 419-439.

Buller, D.B. and Burgoon, J.K. (1994). "Deception: strategic and nonstrategic communication". In: J.A. Daly and J.M. Wiemann (Eds.), *Strategic Interpersonal Communication* (pp. 191-223). Hillsdale, NJ: Erlbaum.

Buller, D.B. and Burgoon, J.K. (1996). "Interpersonal deception theory", *Communication Theory*, 3, pp. 203-242.

Burgoon, J.K., Blair, J.P., and Strom, R. (2008). "Cognitive biases, modalities and deception detection", *Human Communication Research*, 34, pp. 572-599.

Burgoon, J.K., Marett, K., and Blair, J.P. (2004). "Detecting deception in computer-mediated communication". In: J.F. George (Ed.), *Computers in Society: Privacy, Ethics and the Internet* (pp. 154-166). Upper Saddle River, NJ: Prentice-Hall.

Burman, E. and Parker, I. (Eds.) (1993). *Discourse Analytic Research: Repertoires and Readings of Texts in Action.* London: Routledge.

Burton, R.V. and Strichartz, A. (1992). "Liar! Liar! Pants afire" In: S.J. Ceci, M. DeSimone Leichtman and M.E. Putnick (Eds.), *Cognitive and Social Factors in Early Deception.* New Jersey: Lawrence Erlbaum Associates, Inc.

Carson, D. (2007). "A Psychology and Law of Fact Finding?" In: D. Carson, R. Milne, F. Pakes, K. Shalev, and A. Shawyer (Eds.), *Applying Psychology to Criminal Justice* (pp. 115-130). Chichester: John Wiley & Sons Ltd.

Ceci, S.J. and Bruck, M. (1993). "Suggestibility of the child witness: A historical review and synthesis", Psychological Bulletin, 133, pp. 403-439.

Ceci, S.J. and Bruck, M. (1995). *Jeopardy in the courtroom: A scientific analysis of children's testimony.* Washington, DC: American Psychological Association.

Chatman, S. (1990). Coming to Terms: The Rhetoric of Narrative in Fiction and Film. Ithaca, NY: Cornell University Press.

Clark, C. (1997) *Misery and Company: Sympathy in Everyday Life.* Chicago: University of Chicago Press.

Colwell, K., Hiscock, C.K., and Memon, A. (2002). "Interviewing techniques and the assessment of statement credibility", *Applied Cognitive Psychology*, 16, pp. 287-300.

Craig, R. A., Scheibe, R., Raskin, D. C., Kircher, J. C., & Dodd, D. H. (1999). "Interviewer questions and content analysis of children's statements of sexual abuse", *Applied Developmental Science*, 3, pp. 77–85.

Culpeper, J. (2011). *Impoliteness: Using Language to Cause Offence.* Cambridge: Cambridge University Press.

Davatzikos, C., Ruparel, K., Fan, Y., Shen, D.G., Acharyya, M., Loughead, J.W., Gur, R.C., and Langleben, D.D. (2005). "Classifying spatial patterns of brain activity with machine learning methods: Application to lie detection", *Neuroimage*, 28(3) pp. 663-668.

Davies, G.M. (2004). "Coping with suggestion and deception in children's accounts". In: P.A. Granhag and L.A. Strömwall (Eds.), *The Detection of Deception in Forensic Contexts* (pp. 148-171). Cambridge: Cambridge University Press.

Davies, G.M. and Beech, A.R. (2012). *Forensic Psychology: Crime, Justice, Law, Interventions. Second Edition.* West Sussex: John Wiley & Sons Ltd.

DePaulo, B.M. (1992). *Nonverbal behaviour and self-presentation*, Psychological Bulletin, 111, pp. 203-243.

DePaulo, B.M., Blank, A.L., Swain, G.W., and Hairfield, J.G. (1992). "Expressiveness and expressive control", *Personality and Social Psychology Bulletin*, 18, pp. 276-285.

DePaulo, B.M., Kashy, D., Kirkendol, S., Wyer, M., and Epstein, J. (1996). "Lying in everyday life", *Journal of Personality and Social Psychology*, 70, pp. 979-995.

DePaulo, B.M., Kirkendol, S.E., Tang, J., and O'Brien, T.P. (1988). "The motivational impairment effect in the communication of deception: Replications and extensions", *Journal of Nonverbal Behavior*, 12, pp. 177-202.

DePaulo, B.M., LeMay, C.S., and Epstein, J.A. (1991). "Effects of importance of success on effectiveness at deceiving", *Personality and Social Psychology Bulletin*, 17, pp. 14-24.

DePaulo, B.M., Lanier, K., and Davis, T. (1983). "Detecting the deceit of the motivated liar", *Journal of Personality and Social Psychology*, 45, pp. 1096-1103.

DePaulo, B.M., Lindsay, J.L., Malone, B.E., Muhlenbruck, L., Charlton, K., and Cooper, H. (2003). "Cues to deception", *Psychological Bulletin*, 129, pp. 74-118.

DePaulo, B.M. and Rosenthal, R. (1979). "Telling lies", *Journal of Personality and Social Psychology*, 37, pp. 1713-1722.

DePaulo, B.M., Stone, J.I., and Lassiter, G.D. (1985). "Deceiving and detecting deceit". In: B.R. Schlenker (Ed.), *The self and social life* (pp. 323-370). New York: Mc-Graw Hill.

Drew, P. and Heritage, J. (1992). "Analyzing talk at work: An introduction". In: P. Drew and J. Heritage (Eds.), *Talk at Work* (pp. 470-520). Cambridge: Cambridge University Press.

Drisko, J.W. and Maschi, T. (2016). *Content Analysis.* Oxford: Oxford University Press.

Dukała, K. and Polczyk, R. (2014). "Value of Content-Based Deception Detection Methods", *European Polygraph,* 8(1), pp. 29-44.

Eelen, G. (2001). *A Critique of Politeness Theories*. Manchester: St Jerome Publishing.

Eggins, S. and Slade, D. (1997). *Analysing Casual Conversation.* London: Cassell.

Ekman, P. (1981). Mistakes when deceiving, *Annals of the New York Academy of Sciences,* 364, pp. 269-278.

Ekman, P. (1985). *Telling lies: Clues to deceit in the marketplace, marriage, and politics.* New York: W.W. Norton.

Ekman, P. (2001). *Telling lies: Clues to deceit in the marketplace, marriage, and politics* (3rd edition). New York: W.W. Norton.

Ekman, P. and Frank, M.F. (1993). "Lies that fail". In: M. Lewis and C. Saarni (Eds.), *Lying and deception in everyday life* (pp. 93-105). New York, NY: Guildford Press.

Ekman, P. and Friesen, W.V. (1974). "Detecting deception from the body or face", *Journal of Personality and Social Psychology*, 29(3), pp. 288-298.

Ekman, P. and O' Sullivan. (1991). "Who can catch a liar?", *American Psychologist,* 46, pp. 913-920.

Elaad, E., Ginton, A., and Jungman, N. (1992). "Detection measures in real-life criminal guilty knowledge tests", *Journal of Applied Psychology*, 77(5), pp. 757-767.

Ellison, N., Heino, R., and Gibbs, J. (2006). "Managing Impressions Online: Self-Presentation Processes in the Online Dating Environment", *Journal of Computer-Mediated Communication*, 11, pp. 415-441.

Erdmann, K., Volbert, R., and Böhm, C. (2004). "Children report suggested events even when interviewed in a non-suggestive manner: what are its implications for credibility assessment?", *Applied Cognitive Psychology*, 18(5), pp. 589-611.

Esplin, P. W., Boychuk, T., & Raskin, D. C. (June, 1988). "A field validity study of Criteria-Based Content Analysis of children's statements in sexual abuse cases." Paper presented at the NATO Advanced Study Institute on Credibility Assessment. Maratea, Italy.

Finkbeiner, R., Meibauer, J. and Schumacher, P.B. (2012). "Introduction". In: R. Finkbeiner, J. Meibauer, and P.B. Schumacher (Eds.), *What is a Context? Linguistic Approaches and Challenges* (pp. 1-5). Amsterdam: John Benjamins Publishing Company.

Galaśinski, D. (2000). *The Language of Deception: A Discourse Analytic Study*. London: SAGE Publications Ltd.

Galaśinski, D. (2000). *The Language of Deception: A Discourse Analytic Study*, [Kindle ed.]. London: SAGE Publications Ltd.

Gass, R.H. and Seiter, J.S. (2016). *Persuasion: Social Influence and Compliance Gaining*. London: Routledge.

Goddard, C. and Tucci, J. (1991). "Child protection and the need for the reappraisal of the social worker-client relationship", *Australian Social Work,* 44(2), pp. 3-10.

Goffman, E. (1959). *The presentation of self in everyday life.* Garden City, NY: Doubleday/Anchor Books.

Goffman, E. (1971). *Relations in public.* New York: Basic Books.

Goffman, E. (1974). *Frame analysis.* New York: Harper Colophon Books.

Graham, D.L.R. (1994). *Loving to survive: sexual terror, men's violence and women's lives.* New York: New York University Press.

Granhag, P.A. and Strömwall, L.A. (Eds.). (2004). *The detection of deception in forensic contexts.* Cambridge: Cambridge University Press.

Granhag, P.A. and Vrij, A. (2005). "Deception Detection". In: N. Brewer and K.D. Williams (Eds.), *Psychology and Law: An Empirical Perspective* (pp. 43-92). New York: Guildford Press.

Gray, P.S., Williamson, J.B., Karp, D.A., and Dalphin, J.R. (2007). *The Research Imagination: An Introduction to Qualitative and Quantitative Research Methods.* Cambridge: Cambridge University Press.

Grice, H.P. (1957). "Meaning", *Philosophical Review*, 67, pp. 377-388.

Grice, H.P. (1968). "Utterer's meaning, sentence-meaning, and word-meaning", *Foundations of Language*, 4, pp. 1-18.

Grice, H.P. (1975). "Logic and conversation". In: P. Cole and J. Morgan (Eds.), *Speech Acts (Syntax and Semantics, Volume 9)* (pp. 41-58). New York: Academic Press.

Gumpert, C. H., and Lindblad, F. (1999). "Expert testimony on child sexual abuse: A qualitative study of the Swedish approach to statement analysis", *Expert Evidence*, 7, pp. 279–314.

Gumperz, J.J. (1992). "Contextualization and understanding". In: A. Duranti and S. Goodwin (Eds.), *Rethinking context: Language as an interactive phenomenon* (pp. 229-252). Cambridge: Cambridge University Press.

Hasan, R. (2004). "Analysing Discursive Variation". In: L. Young and C. Harrison (Eds.), *Systemic Functional Linguistics and Critical Discourse Analysis: Studies in Social Change.* London: Continuum.

Hartwig, M., Granhag, P.A., and Luke, T. (2014). "Strategic Use of Evidence During Investigative Interviews: The State of the Science". In: D.C. Raskin, C.R. Honts and J.C. Kircher (Eds.), *Credibility Assessment: Scientific Research and Applications*. Oxford: Elsevier.

Hauch, V., Ludwig Sporer, S., Masip, J., and Blandón-Gitlin, I. (2017). "Can Credibility Criteria Be Assessed Reliably? A Meta-Analysis of Criteria-Based Content Analysis", *Psychological Assessment*, 29(6), pp. 819-834.

Haworth, K. (2009). *An analysis of police interview discourse and its role(s) in the judicial process.* University of Nottingham: Unpublished PhD thesis.

Hewitt, S.K. (1999). *Assessing Allegation of Sexual Abuse in Preschool Children: Understanding Small Voices.* London: SAGE Publications, Ltd.

Holgraves, T. (2002). *Language As Social Action: Social Psychology and Language Use*. London: Lawrence Erlbaum Associates.

Honts, C.R. (1994). "Assessing children's credibility: Scientific and legal issues in 1994", *North Dakota Law Review*, 70, pp. 879-903.

Honts, C.R. (2004). "The psychophysiological detection of deception". In: P.A. Granhag and L.A. Stromwall (Eds.), *The detection of deception in forensic contexts* (pp. 103-126). Cambridge: Cambridge University Press.

Horowitz, S.W. (1991). "Empirical Support for Statement Validity Assessment", *Behavioral Assessment*, 13, pp. 293-313.

Horowitz, S.W. (1998). "Reliability of criteria-based content analysis of child witness statements: Response to Tully", Legal and Criminological Psychology, 3, pp. 189-193.

Horowitz, S.W., Lamb, M.E., Esplin, P.W., Boychuk, T.D., Krispin, O., and Reiter-Lavery, L. (1997). "Reliability of criteria-based content analysis of child witness statements", *Legal and Criminological Psychology*, 2, pp. 11-21.

Howitt, D. (2006). *Introduction to Forensic and Criminal Psychology* (2nd edition). Essex: Pearson Education Ltd.

Huagaard, J.J. and Reppucci, N.D. (1992). "Children and the truth". In: S.J. Ceci, M. DeSimone Leichtman and M.E. Putnick (Eds.), *Cognitive and Social Factors in Early Deception.* New Jersey: Lawrence Erlbaum Associates, Inc.

Inbau, F.E., Reid, J.E., Buckley, J.P., and Jane, B.C. (2001). *Criminal interrogation and confessions (fourth edition)*. Gaithersberg, MD: Aspen.

Jefferson, G. (2015). *Talking About Troubles in Conversation*. Oxford: Oxford University Press.

Joffe, H. and Yardley, L. (2004). "Content and Thematic Analysis". In: D.F. Marks and L. Yardley (Eds.), *Research Methods for Clinical and Health Psychology*. London: SAGE Publications Ltd.

Jones, E.E. and Pittman, T.S. (1982). "Toward a general theory of strategic self-presentation". In: J. Suls (Ed.), *Psychological perspectives on the self* (Vol. 1, pp. 231-262). Hillsdale, NJ: Erlbaum.

Jülich, S. (2005). "Stockholm Syndrome and Child Sexual Abuse", Journal of Child Sexual Abuse, 14(3), pp. 107-129.

Kapardis, A. (2014). *Psychology and Law: A Critical Introduction* (Fourth Edition). Cambridge: Cambridge University Press.

Köhnken, G. (1989). "Behavioral correlates of statement credibility: Theories, paradigms and results". In: H. Wegener, F. Lösel, and J. Haisch (Eds.), *Criminal behaviour and the justice system: Psychological perspectives* (pp. 271-289). New York, NY: Springer-Verlag.

Köhnken, G. (1995). "Interviewing adults". In: R. Bull and D. Carson (Eds.), *Handbook of psychology in legal contexts* (pp. 215-233). Chichester: Wiley.

Köhnken, G. (1996). "Social psychology and the law". In: G.R. Semin and K. Fiedler (Eds.), *Applied social psychology* (pp. 257-282). London: SAGE Publications Ltd.

Köhnken, G. (1999). "Statement Validity Assessment". Paper presented at the pre-conference program of applied courses "Assessing credibility", organised by the European Association of Psychology and Law, Dublin, Ireland.

Köhnken, G. (2004). "Statement Validity Analysis and the 'detection of truth'". In P. A. Granhag, and L. A. Strömwall (Eds.), *The detection of deception in forensic contexts* (pp. 41–63). Cambridge: Cambridge University Press.

Köhnken, G. and Höfer, E. (1999). "Assessing the credibility of witness statements". Paper presented at the 24th International Congress of Applied Psychology, San Francisco.

Köhnken, G., Schimossek, E., Aschermann, E., and Höfer, E. (1995). "The Cognitive Interview and the Assessment of the Credibility of Adults' Statements", *Journal of Applied Psychology*, 80, pp. 671-684.

Kopytko, R. (2003). "What is wrong with modern accounts of context in linguistics?", *Vienna English Working Papers*, 12, pp. 45-60.

Kulkofsky, S. (2008). "Credible but inaccurate: can criterion-based content analysis [CBCA] distinguish true and false memories?". In: M.J. Smith (Ed.), *Child Sexual Abuse: Issues and Challenges* (pp. 21-42). New York: Nova Science Publishers.

Lamb, M. E., Sternberg, K. J., Esplin, P. W., Hershkowitz, I., Orbach, Y., and Hovav, M. (1997). "Criterion-Based Content Analysis: A field validation study", *Child Abuse & Neglect*, 21, pp. 255– 264.

Lamers-Winkelman, F., and Buffing, F. (1996). "Children's testimony in the Netherlands: A study of Statement Validity Analysis". In B. L. Bottoms, and G. S. Goodman (Eds.), *International perspectives on child abuse and children's testimony* (pp. 45–62). Thousand Oaks, CA: Sage.

Landry, K. and Brigham, J. (1992). "The effect of training in Criteria-Based Content Analysis on the ability to detect deception in adults", *Law and Human Behavior*, 16, pp. 663-675.

Lansley, C. (2017). *Getting to the Truth.* [Kindle ed.] Sevenoaks: Emotional Intelligence Academy Ltd.

Lasswell, H.D. (1942). "The Politically Significant Content of the Press: Coding Procedures", Journalism Quarterly, 19(1), pp. 12-23.

Leech, G. (1983). *Principles of Pragmatics.* London: Longman.

Leins, D., Fisher, R., and Vrij, A. (2012). "Drawing on liars' lack of cognitive flexibility: Detecting deception through varying report modes", *Applied Cognitive Psychology*, 26, pp. 601-607.

Levine, T.R. (2014). *Encyclopedia of Deception*. London: SAGE Publications, Ltd.

Levine, T.R., Park, H.S., and McCornack, S.A. (1999). "Accuracy in detecting truths and lies: Documenting the 'veracity effect'", *Communication Monographs*, 66, pp. 125-144.

Levine, T. and Kim, R.K. (2010). "Some Considerations for a New Theory of Deceptive Communication". In: M.S. McGlone and M.L. Knapp (Eds.), *The Interplay of Truth and Deception: New Agendas in Communication* (pp. 16-34). London: Routledge.

Levinson, S.C. (1979). "Activity types and language", *Linguistics*, 17.5/6, pp. 356-399.

Levinson, S.C. (1983). *Pragmatics.* Cambridge: Cambridge University Press.

Limberg, H. (2008). "Threats in conflict talk: Impoliteness and manipulation". In: D. Bousfield and M.A. Locher (Eds.), *Impoliteness in Language: Studies on its Interplay with Power in Theory and Practice* (pp. 155-180). Berlin: Mouton de Gruyter.

Littmann, E. and Szewczyk, H. (1983). "Zu einigen Kriterien und Ergebnissen forensisch-psychologischer Glaubwürdigkeitsbegutachtung von sexuell mis-brauchten Kindern und Jugdendlichen" [On some criteria and results of the forensic-psychological credibility assessment of sexually abused children and youth/adolescents], *Forensia*, 4, pp. 55-72.

MacLaren, V.V. (2001). "A quantitative review of the guilty knowledge test", *Journal of Applied Psychology*, 86(4), pp. 674-683.

Malinowski, B. (1923). "The problem of meaning in primitive languages". In: C.K. Ogden and I.A. Richards (Eds.), *The Meaning of Meaning* (pp. 296-336). London: Routledge.

McCornack, S.A. (1997). "The generation of deceptive messages". In: J.O. Greene (Ed.), *Message production*, (pp. 91-126). Mahwah, NJ: Erlbaum.

McCornack, S.A., Morrison, K., Paik, J.E., Wiser, A.M., and Zhu, X. (2014)."Information manipulation theory 2: A propositional theory of deceptive discourse production", *Journal of Language and Social Psychology*, 33(4), pp. 348-377.

McCroskey, J.C. and Teven, J.J. (1999). "Goodwill: A re-examination of the construct and its measurement", *Communication Monographs*, 66, pp. 90-103.

McGlone, M.S. and Knapp, M.L. (Eds.). (2010). *The Interplay of Truth and Deception: New Agendas in Communication*. London: Routledge.

Miller, G.R., deTuck, M.A., and Kalbfleisch, P.J. (1983). "Self-monitoring, rehearsal, and deceptive communication", *Human Communication Research*, 10, pp. 97-117.

Miller, G.R. and Stiff, J.B. (1993). *Deceptive communication.* Newbury Park, CA: SAGE Publications Ltd.

Newman, M.L., Pennebaker, J.W., Berry, D.S., and Richards, J.M. (2003). "Lying words: Predicting deception from linguistic style", *Personality and Social Psychology Bulletin*, 29, pp. 665-675.

North, J. (1998). "The 'Ideal' of Forgiveness: A Philosopher's Exploration". In: R.D. Enright and J. North (Eds.), Exploring Forgiveness. Wisconsin: The University of Wisconsin Press.

Northumbria Police. (2013). *Jason Fyles Missing Person Appeal.* [Video]. Available at: <https://www.youtube.com/watch?v=abnupI1oc74> Last accessed 14/06/2017

Meibauer, J. (2012). "What is a context? Theoretical and empirical evidence". In: R. Finkbeiner, J. Meibauer, and P.B. Schumacher (Eds.), *What is a Context? Linguistic Approaches and Challenges* (pp. 9-32). Amsterdam: John Benjamins Publishing Company.

Ochs, E. (1979). "Transcription as Theory". In: A. Jaworksi and N. Coupland (Eds.), *The Discourse Reader.* London: Routledge.

O'Keefe, D.J. (2002). *Persuasion: Theory and research* (2nd edition). Thousand Oaks, CA: Sage Publications Ltd.

On Demand News. (2012a). *Derby house fire father Mick Philpott holds emotional press conference.* [Video]. Available at: <https://www.youtube.com/watch?v=jxq6Zvr8mPY> Last accessed 14/06/2017.

On Demand News. (2012b). *Missing schoolgirl Megan Stammer's parents make emotional appeal.* [Video]. Available at: <https://www.youtube.com/watch?v=tjD4kr6bX4g> Last accessed 14/06/2017.

O'Sullivan, M. (2013). "Is *Le Mot Juste*? The Contextualization of Words by Expert Lie Detectors". In: B.S. Cooper, D. Griesel, and M. Ternes (Eds.), *Applied Issues in Investigative Interviewing, Eyewitness Memory, and Credibility Assessment* (pp. 239-257). New York: Springer.

O'Sullivan, M., Ekman, P., and Friesen, W.V. (1988). "The effect of comparisons on detecting deceit", *Journal of Nonverbal Behavior*, 12(3), pp. 203-215.

Palmer, F.R. (1981). *Semantics* (2nd edition). Cambridge: Cambridge University Press.

Parker, A. D., and Brown, J. (2000). "Detection of deception: Statement Validity Analysis as a means of determining truthfulness or falsity of rape allegations", *Legal and Criminological Psychology*, 5, pp. 237–259.

Pawelczyk, J. (2011). *Talk as Therapy: Linguistic Investigations in Psychotherapy*. Berlin: de Gruyter.

Petersen, R. (1997). *Konzeption und Evaluation der Validität des Kieler Trainingsprogramms zur Beurteilung der Glaubwürdigkeit von Zeugenaussagen*. Unpublished thesis, Universität Kiel.

Phillips, N. and Hardy, C. (2002). Discourse Analysis: Investigating Processes of Social Construction. London; SAGE Publications Ltd.

Podlesny, J.A. and Raskin, D.C. (1977). "Physiological measure and the detection of deception", *Psychological Bulletin*, 84(4), pp. 782-799.

Pontari, B.A. and Schlenker, B.R. (2000). "The influence of cognitive load on self-presentation: Can cognitive busyness help as well as ham social performance?", *Journal of Personality and Social Psychology*, 78, pp. 1092-1108.

Poole, D.A. and Lindsay, D.S. (1998). "Assessing the accuracy of young children's reports: Lessons from the investigation of child sexual abuse", *Applied & Preventive Psychology*, 7, pp. 1-26.

Porter, S. and ten Brinke, L. (2008). "Reading between the lies: Identifying concealed and falsified emotions in universal facial expressions", *Psychological Science*, 19, pp. 508-514.

Porter, S. and ten Brinke, L. (2010). "The truth about lies: What works in detecting high-stakes deception?" *Legal and Criminological Psychology*, 15, pp. 57-75.

Porter, S. and Yuille, J.C. (1995). "Credibility assessment of criminal suspects through statement analysis*", Psychology, Crime, and Law*, 1, pp. 319-331.

Porter, S. and Yuille, J.C. (1996). "The language of deceit: An investigation of the verbal clues to deception in the interrogation context", *Law and Human Behavior*, 20, pp. 443-458.

Porter, S., Yuille, J.C. and Birt, A.R. (2001). "The Discrimination of Deceptive, Mistaken, and Truthful Witness Testimony". In: R.R. Corrado, R. Dempster, R. Roesch (Eds.), *Psychology in the Courts: International Advances in Knowledge*. London: Routledge.

Raskin, D. C., and Esplin, P.W. (1991). "Assessment of children's statements of sexual abuse." In J. Doris (Ed.), *The suggestibility of children's recollections* (pp. 153–165). Washington, DC: American Psychological Association.

Raskin, D.C. and Kircher, J.C. (2014). "Validity of polygraph techniques and decision methods". In: D.C. Raskin, C.R. Honts, and J.C. Kircher (Eds.), *Credibility assessment: scientific research and applications* (pp. 65-132). London: Academic Press.

Rassin, E. (1999). "Criteria-based content analysis: the less scientific road to truth", *Expert Evidence,* 7, pp. 265-278.

Reinhart, T. (1980). "Conditions for Text Coherence", *Poetics Today*, 1(4), pp. 161-180.

Rieh, S.Y. and Danielson, D.R. (2007). "Credibility: A multidisciplinary framework". In: B. Cronin (Ed.), *Annual Review of Information Science and Technology*, 14, pp. 307-364.

Roberts, C. (2003). "Applied linguistics applied". In: S. Sarangi and T. van Leeuwen (Eds.), *Applied Linguistics and Communities of Practice* (pp. 132-149). London: Continuum.

Roberts, C. and Campbell, S. (2006). "Talk on Trial: Job Interviews, Language and Ethnicity". Retrieved 12th May 2017 from Department for Work and Pensions at: http://webarchive.nationalarchives.gov.uk/20130128102031/http:/research.dwp.gov.uk/asd/asd5/summ2005-2006/344summ.pdf

Roma, P., San Martini, P., Sabatello, U., Tatarelli, R., and Ferracuti, S. (2011). "Validity of criteria-based content analysis (CBCA) at trial in free-narrative interviews", *Child Abuse and Neglect*, 35, pp. 613-620.

Ruby, C. L., and Brigham, J. C. (1997). "The usefulness of the Criteria-Based Content Analysis technique in distinguishing between truthful and fabricated allegations", *Psychology, Public Policy and Law*, 3, pp. 705–737.

Santilla, P., Roppola, H., Runtti, M., and Niemi, P. (2000). "Assessment of child witness statements using criteria based content analysis (CBCA): The effects of age, verbal ability and interviewers' emotional style", *Psychology, Crime, and Law*, 6, pp. 159-179.

Sarangi, S. (2006). "The conditions and consequences of professional discourse studies". In: R. Kiely, P. Rea-Dickins, H. Woodfield, and G. Clibbon (Eds.), *Language, Culture and Identity in Applied Linguistics (British Studies in Applied Linguistics, Volume 21)* (pp. 199-220). London: Equinox.

Sarangi, S. and Roberts, C. (Eds.). (1999). *Talk, Word and Institutional Order: Discourse in Medical, Mediation and Management Settings.* New York: Mouton de Gruyter.

Scheurich, J. (1997). *Research Method in the Postmodern.* Oxon: Routledge.

Schlenker, B.R. (1982). "Translating actions into attitudes: An identity-analytic approach to the explanation of social conduct", *Advances in Experimental Social Psychology*, 15, pp. 193-247.

Schlenker, B.R. and Weigold, M.F. (1989). "Goals and the self-identification process: Constructing desired identities". In: L. Pervin (Ed.), *Goals concepts in personality and social psychology* (pp. 243-290). Hillsdale, NJ: Erlbaum.

Schneider, M. (2012). *Qualitative Content Analysis in Practice*. London: SAGE Publications Ltd.

Schriffin, D. (1994). *Approaches to discourse.* Cambridge, MA: Blackwell Publishers.

Searle, J. (1962). "What is a speech act?" In: M. Black (Ed.), *Philosophy in America* (pp. 221-239). Ithaca, NY: Cornell University Press.

Searle, J. (1969). *Speech Acts.* Cambridge: Cambridge University Press.

Silverman, D. (2006). *Interpreting qualitative data: Methods for analysing talk, text and interaction (third edition).* London: Sage.

Soppe, H. (1995). "Getuigenissen van kinderen in zedenzaken II: Bepaling van de geloofwaardigheid [Children's Testimonies II: Determination of Credibility]", *De Psycholoog,* 30, pp. 261-270.

Sporer, S. (1997). "The less travelled road to truth: Verbal cues in deception detection in accounts of fabricated and self-experienced events", *Applied Cognitive Psychology*, 11, pp. 373–397.

Sporer, S. and Schwandt, B. (2007). "Moderators of nonverbal indicators of deception: An analytic synthesis", *Psychology, Public Policy and Law*, 13, pp. 1-34.

Steller, M. and Böhm, C. (2006). "Cincuenta años de jurisprudencia del Tribunal Federal Supremo alemán sobre la psicología del testimonio: Balance y perspectiva." In: T. Fabian, C. Böhm, & J. Romero (Eds.), *Nuevos caminos y conceptos en la psicología jurídica* (pp. 53-67). Münster, Germany: LIT Verlag.

Steller, M., & Köhnken, G. (1989). "Criteria-Based Statement Analysis". In D. Raskin (Ed.), *Psychological methods for criminal investigation and evidence* (pp. 217–245). New York: Springer-Verlag.

Strömwall, L. A., Bengtsson, L., Leander, L., and Granhag, P. A. (2004). "Assessing children's statements: The impact of a repeated experience on CBCA and RM ratings", *Applied Cognitive Psychology*, 18, pp. 653–668.

Summit, R.C. (1983). "The child abuse accommodation syndrome", Child Abuse & Neglect, Vol. 7, pp. 177-193.

Tashakkori, A. and Teddie, C. (1998). Mixed Methodology: Combining Qualitative and Quantitative Approaches. London: SAGE Publications.

Tears, Lies and Videotape. (2009). [Documentary]. London: ITV1.

ten Brinke, L., MacDonald, S., Porter, S., and O' Connor, B. (2011). "Crocodile Tears: Facial and Body Language Behaviours Associated With Genuine and Fabricated Remorse", *Law and Human Behavior*, 36(1), pp. 51-59.

ten Brinke, L. and Porter, S. (2012). "Cry Me a River: Identifying the Behavioral Consequences of Extremely High-Stakes Interpersonal Deception", *Law and Human Behavior*, 36(6), pp. 469-477.

ten Brinke, L. and Porter, S. (2013). "Discovering deceit: Applying laboratory and field research in the search for truthful and deceptive behaviour". In: B.S. Cooper, D. Griesel, and M. Ternes (Eds.), *Applied Issues in Investigative Interviewing, Eyewitness Memory, and Credibility Assessment* (pp. 221-237). New York: Springer.

ten Brinke, L., Macdonald, S., Porter, S., and O'Connor, B. (2012). "Crocodile tears: facial, verbal and body language behaviours associated with genuine and fabricated remorse", *Law and Human Behavior*, 36(1), pp. 51-59.

ten Brinke, L., Stimson, D. and Carney, D.R. (2014). "Some evidence for unconscious lie detection", *Psychological Science*, 25, pp. 1098-1105.

The Telegraph (2012). *Missing Tia Sharp's family appeal for help.* [Video]. Available at: <http://www.telegraph.co.uk/news/uknews/crime/9458214/Missing-Tia-Sharps-family-appeal-for-help.html> Last accessed 14/06/2017.

Rebecca Jagodziński

Thomas, J. (1995). *Meaning in Interaction: An Introduction to Pragmatics.* London: Routledge.

Trankell, A. (1963). *Vittnespsykologins Arbetsmetoder.* Stockholm, Sweden: Liber.

Trankell, A. (1972). *Reliability of evidence.* Stockholm: Beckmans.

Tully, B. (1998). "Reliability of Criteria-Based Content Analysis of Child Witness Statements: Cohen's Kappa Doesn't Matter", *Legal and Criminal Psychology*, 3, pp. 183-188.

Undeutsch, U. (1967). "Beurteilung der glaubhaftigkeit von aussagen." In: U. Undeutsch (Ed.), *Handbuch der psychologie, Foren-sische psychologie*, 11, pp. 26-181. Göttingen, Germany: Hogrefe.

Undeutsch, U. (1982). "Statement reality analysis". In: A. Tranekll (Ed.), *Reconstructing the past: The role of psychologists in criminal trials* (pp. 27-56). Deventer, the Netherlands: Kluwer.

Undeutsch, U. (1984). "Courtroom evaluation of eyewitness testimony", *International Review of Applied Psychology*, 33, pp. 51–67.

Vaismoradi, M., Turunen, H., and Bondas, T. (2013). "Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study", *Nursing and Health Sciences*, 15, pp. 398-405.

van Dijk, T.A. (1992). *Text and Context: Explorations in the semantics and pragmatics of discourse.* London: Longman.

Virtanen, T. (1995). "'Then I saw to antique heddes': Discourse Strategies in Early Modern English Travelogues". In: A.H. Jucker (ed), *Historical Pragmatics: Pragmatic Developments in the History of English* (pp. 499-514). Amsterdam: John Benjamins Publishing Company.

Vrij, A. (2000). *Detecting lies and deceit.* Chichester: Wiley.

Vrij, A. (2004). "Guidelines to catch a liar". In: P.A. Granhag and L.A. Strömwall (Eds.), *The detection of deception in forensic contexts* (pp. 287-314). Cambridge: Cambridge University Press.

Vrij, A. (2005). "Criteria-Based Content Analysis: A Qualitative Review of the First 37 Studies", *Psychology, Public Policy, and Law*, 11(1), pp. 3-41.

Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and opportunities (Second Edition)*, Chichester: John Wiley and Sons.

Vrij, A. (2015). "Verbal Lie Detection Tools: Statement Validity Analysis, Reality Monitoring and Scientific Content Analysis". In: A. Granhag, A. Vrij, and B. Verschuere (Eds.), *Detecting Deception: Current Challenges and Cognitive Approaches* (pp. 3-36). West Sussex: John Wiley & Sons, Ltd.

Vrij, A., Akehurst, L., Soukara, S., and Bull, R. (2002). "Will the truth come out? The effect of deception, age, status, coaching and social skills on CBCA scores", *Law and Human Behavior*, 26, pp. 261-283.

Vrij, A., Edward, K., and Bull, R. (2001). "Stereotypical verbal and nonverbal responses while deceiving others", Personality and Social Psychology Bulletin, 27, pp. 899-909.

Vrij, A., Edward, K., Roberts, K.P., and Bull, R. (2000). "Detecting deceit via analysis of verbal and nonverbal behavior", *Journal of Nonverbal Behavior*, 24, pp. 239-264.

Vrij, A. and Ganis, G. (2014). "Theories in deception and lie detection". In: D.C. Raskin, C.R. Honts, and J.C. Kircher (Eds.), *Credibility Assessment: Scientific Research and Applications* (pp. 301-374). Academic Press.

Vrij, A. and Heaven, S. (1999). "Vocal and verbal indicators of deception as a function of lie complexity", *Psychology, Crime & Law*, 5, pp. 203-215.

Vrij, A. and Mann, S. (2001). "Telling and detecting lies in a high-stake situation: The case of a convicted murderer", *Applied Cognitive Psychology,* 15, pp. 187-203.

Walczyk, J.J., Igou, F.P., Dixon, A.P., and Tcholakian, T. (2014). "Advancing Lie Detection by Inducing Cognitive Load on Liars: A Review of Relevant Theories and Techniques Guided by Lessons from Polygraph-Based Approaches". In: W. Ambach and M. Gamer (Eds.), *Frontiers Research Topics: Basic and Applied Research on Deception and its Detection* (pp. 135-147). Lausanne, Switzerland: Frontiers Media SA.

Wallace, P. (1999). *The Psychology of the Internet.* Cambridge: Cambridge University Press.

Watts, R. (2003). *Politeness*. Cambridge: Cambridge University Press.

Wells, G.L. and Loftus, E.F. (1991). "Commentary: Is this child fabricating? Reactions to a new assessment technique". In: J. Doris (Ed.), *The suggestibility of children's recollections* (pp. 168-171). Washington, DC: American Psychological Association.

Wharton, T. (2010). "Context". In: L. Cummings (Ed.), *The Pragmatics Encyclopedia* (pp. 74-75). London: Routledge.

Whelan, C.W. (2012). "High Stakes Lies: Identifying and Using Cues to Deception and Honesty in Appeals for Missing and Murdered Relatives". Unpublished PhD thesis. University of Liverpool, UK.

Whelan, C.W., Wagstaff, G.F., and Wheatcroft, J.M. (2014). "High-Stakes Lies: Verbal and Nonverbal Cues to Deception in Public Appeals for Help with Missing or Murdered Relatives", *Psychiatry, Psychology and Law*, 21(4), pp. 523-537.

Wood, L.A. and Kroger, R.O. (2000). *Doing discourse analysis: Methods for studying action in talk and text.* Thousand Oaks, CA: Sage Publications.

Yarbrough, J., Hervé, H.F., and Harms, R. (2012). "The Sins of Interviewing: Errors Made by Investigative Interviewers and Suggestions for Redress". In: B.S. Cooper, D. Griesel, and M. Ternes (Eds.), *Applied Issues in Investigative Interviewing, Eyewitness Memory, and Credibility Assessment* (pp. 59-95). New York: Springer.

Yuille, J.C. (1988). "The systematic assessment of children's testimony", *Canadian Psychology,* 29, pp. 247-262.

Yuille, J., Hunter, R., Joffe, R., and Zaparniuk, J. (1993). "Interviewing children in sexual abuse cases". In: G. Goodman and B. Bottoms (Eds.), *Child victims, child witnesses: Understanding and improving testimony* (pp. 95-115). New York: Guildford.

Zaparniuk, J., Yuille, J.C., and Taylor, S. (1995). "Assessing the credibility of true and false statements", *International Journal and Law and Psychiatry*, 18, pp. 343-352.

Zuckerman, M., DePaulo, B.M., and Rosenthal, R. (1981). "Verbal and nonverbal communication in deception". In: L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 14, pp. 1-59). New York, NY: Academic Press.

Zuckerman, M., Driver, R., and Koestner, R. (1982). "Discrepancy as a cue to actual and perceived deception", *Journal of Nonverbal Behavior*, 7, pp. 95-100.

APPENDICES

Appendix 1: Deceptive Transcripts

Clip 1: Tracie Andrews

Clip 1, as outlined in 3.3, was a press appeal made by Tracie Andrews in relation to the murder of her boyfriend Lee Harvey. Harvey was stabbed 37 times, and Andrews blamed his death on a road rage incident, giving a detailed statement to police about a "cat-and-mouse" car chase which culminated in a violent attack on Harvey by the passenger of the other car. Andrews was later convicted of Harvey's murder on the basis of forensic evidence and witness statements which contradicted her story. Below is the transcript of Andrews' statement as part of her press appeal:

1	TA:	both Lee and the other person were like playing cat and mouse with each
2		other for a while
3		[…]
4	TA:	erm I got out the car because I'm not the sort of person to sit there I got out
5		the car and then I went over to the er man we had a confrontation and he
6		hit me I can't remember I fell to the floor I can't remember if I was erm
7		knocked out for a bit I don't know
8		[…]
9	TA:	it was just the way he looked he was his eyes was he had starey eyes
10		[…]
11	TA:	the er driver er walked off it was nothing to do with the driver and all I want to say
12		is please will the driver of the car just come forward because you are not to
13		blame for this and I know that
14		[…]
15	TA:	please just tell us who he is because you won't get into any trouble at all it is not
		your fault

Clip 2: Karen Matthews

As noted in 3.3, clip 2 was a press appeal made by Karen Matthews in relation to the disappearance of her daughter Shannon. Shannon was eventually found drugged and hidden inside the divan bed of Karen's boyfriend's uncle, Michael Donovan. Both Matthews and Donovan were later found guilty of kidnapping, false imprisonment, and perverting the course of justice, having orchestrated Shannon's disappearance in order to make money.

1	well it's hard to sleep really it's just the house just doesn't feel the same without
2	being here not being there really it just it just feels empty it's just
3	[…]
4	whoever's got Shannon just please let her go her family's missing her all her
5	friends are missing her at school
6	[…]
7	well I think somebody out there will know Shannon I suppose they'll probably

8	me as well and it's just I just want her home safe really
9	[…]
10	it makes me think now I can't trust people who's really close to me any more I
11	just can't trust them

CLIP 3: MICK PHILPOTT

The press appeal from clip 3 was made by Mick Philpott in relation to a fire at their home which killed 6 of his children. Although his wife Mairead was present during the press appeal, she did not speak. Both Mick and Mairead, as well as their friend Paul Mosely, were later found guilty of manslaughter, after it was revealed that Mick deliberately started the fire in an attempt to discredit an ex-partner and gain custody of her four children, as well as to relocate to a bigger council property.

1	MP:	first of all I want to thank my three eldest children because they are helping us to
2		cope with what's going on and then there's a young lad called Daniel Stevenson
3		who tried to get in the house the same as myself erm Joe across the road and and
4		the Butler brothers and of course the poor firemen the police the ambulances the
5		doctors the nurses literally everybody who's who tried to help save our children
6		they couldn't you'll have to excuse me a minute we decided that through our son
7		Duwayne reported to be the last one who passed away that we're going to donate
8		his organs to to save another child which is what we want because if you can save
9		another child that makes us happy it takes a bit of the pain away and we can't
10		express our gratitude to everybody who's been concerned with the case what's
11		been going on erm I've actually been down to my our our our home and what we
12		saw we just cannot believe it we've grew up in a community that's been had a lot of
13		problems with violence and god knows what else and to see this community come
14		together like they have is just it's just too overwhelming we've had people from
15		America France even the travelling community I mean the travelling community it
16		it's just we've been to see them it's just overwhelming isn't it but I say I can't
17		express enough the effort the police the fire brigade the ambulance service
18		because what we feel for them poor gentlemen from the fire brigade saw what we
19		seen you know my heart goes out to them because it's not just us that's suffered
20		it's them as well it's everybody it's but there's one thing I would request is please
21		please leave my family alone if you've got any questions or anything at all please
22		don't come through mine or my family please go to the police because what's
23		happening at the moment you're disrupting what these officers are trying to do so
24		please I beg you leave us alone and let us try and grieve in peace and quiet that's all
25		I ask thank you

CLIP 4: STUART HAZELL

Clip 4 consists of a press interview of Stuart Hazell in relation to the disappearance of his girlfriend's granddaughter Tia Sharp. Tia's body was later found in the attic of Hazell's home; despite attempting to flee, Hazell was later caught and convicted of Tia's murder. The initials SH indicate when Stuart Hazell is speaking; DS, Tia's uncle, David Sharp; and WT, the interviewer, Mark Williams-Thomas.

1   SH: she come downstairs she sat down er sat down here right there in the chair where
2   Dave where you are now Dave er I'm sitting there watching telly she picked up er
3   your mum's DS up played the DS for a little while I said we're gonna have some
4   breakfast so I made her some toast and she had the toast and then she wanted a
5   sausage roll because she's always eating sausage rolls er er basically then she was
6   sitting there she doesn't take her washing up out so I took her washing up out erm
7   just started doing like a bit of washing up in the kitchen she was in there she was
8   telling me what she was doing but I weren't really logging it into my head I didn't
9   do you know what I mean like kids they talk to you it goes in one ear stays in for a
10   second then it goes out d'you know what I mean then I was I was washing up wiped
11   the sides down er just had the hoovering I was doing the hoovering there but what
12   it was started off sweeping up in there but we have a rug I can't sweep the rug so I
13   had to hoover the rug because it's got it's like really fluffy so I've hoovered the rug
14   I've hoovered all the way out to the front door literally the kitchen the hallway I've
15   got out there then I've come back and had a cigarette er this time Tia er I've gone
16   upstairs I've got the washing sorry I've done the hallway there I've gone upstairs
17   done the washing made sure there's no washing upstairs made the bed opened the
18   curtains er come back downstairs er by then Tia's going upstairs to get changed er
19   she was still mumbling away er I can't remember what she was bloody on about to
20   be honest with you er excuse my language erm well basically er I was in the kitchen
21   then finished off all that then I come back in here finished off my hoovering in the
22   front room and the hallway got to there when I got the dog's bed I had to shake the
23   dog's beds out erm as I was hoovering then she walks out she walked past me from
24   the front room to go out and she walked out the front door that's all I know and
25   she left her bloody phone on charge because I told her to sit there and leave her
26   phone on charge I didn't mean leave it on charge because what Tia doing she plays
27   the BB thing but then she uses it as it's charging so there's no charge going through
28   to it so when I said to her just leave leave your phone on charge it means leave the
29   phone on charge not use it let it charge up a bit so you can actually take it with you
30   or whatever because she's been responsible to go to Croydon before she's been
31   responsible to go on trains and buses and trams and everything before on her own
32   not so much trains but her trams and buses she's done it all on her own and it was
33   just an everyday thing you know just that one time you want to bloody listen to her
34   and you just don't
35   […]
36 SH: er she said er goodbye I said well so make sure you're back at six she went yeah
37   yeah yeah and that was it then the door closed and she walked out
38 WT: and what about key things like that does she have a front door [key]
39 SH: [no] I would've
40   been here I would've been home
41 WT: right
42 SH: I would've been home
43 WT: but does she have a front door key
44 SH: no she doesn't have a front door key =
45 WT: = right =
46 SH: = because someone's always here if no
47   one's here then she goes to one of her friend's on the estate or literally the
48   neighbours or someone like that
49 WT: right
50   […]
51 SH: I know exactly what she was wearing she was wearing exactly what she had when
52:       she come up here because I washed her clothes that night

53	WT:	right tell me what that was
54	SH:	it was a yellow I thought it was a er tight tube thing but it was all I know is that it
55		was yellow right and she had this grey sort of like really they looked like jeans but
56		they weren't jeans chi- I'm sure she said they were jeggings or something like that
57	WT:	chinos
58	SH:	chinos or something like that I don't know I'm not up on women's clothes what
59		they call them different names but basically it was a yellow top she had her trainers
60		on because her Ugg boots were up there and she already had them she wouldn't
61		wear that when she was going out because she was only going out to buy the flip
62		flops that was it she was adamant to go and buy flip flops
63	WT:	and what what else did she was she carrying bags did she have [anything with her]
64	SH:	[she didn't have]
65		nothing no she didn't have nothing on her at all she didn't have an oyster card
66		because she'd lost that months ago you know what I mean so
67	WT:	so how was she going to buy the flip flops
68	SH:	well I gave her a tenner because she's well the agreement is that she when she
69		she was here she was here for the weekend she asked me do things round the
70		house like do the back garden do the front garden which still ain't done erm so I
71		give her a tenner she helped me do the washing up the night before just a little bit
72		of dusting stuff like that you know what I mean but erm yeah I just give her that
73		because it earns her responsibility and it helps her do things you know what I mean
74		not so much to do things for money but just to do things and plus it was a little bit
75		of pocket money for her anyway
76	WT:	and tell me a little bit about Tia's life I mean is she a happy girl is she jolly has she
77		got any problems
78	SH:	no she's got no problems at all she's she's a happy go lucky golden angel you know
79		what I mean she's she's she's perfect she's there's no arguments no nothing no
80		nothing we can think of absolutely nothing
81	WT:	and tell me about the Thursday night because obviously there was just the two of
82		you did you have a meal did you talk did you was there any particular conversations
83	SH:	we had a meal oh yeah we had a meal that night because we went the co-op we
84		bought these things I bought them for Chris but then Tia ate three of these lollies
85		Nobbly Bobblies and she was going to eat the last one and I said no leave that for
86		your nan because well she'd come back with an empty box in the bin and then she
87		go mad but yeah we had munchies we had like pizza er er pizza chips which I'd
88		made her another one which is still in the oven now you know what I mean you
89		know what I mean the chips
90		[…]
91	SH:	I was getting a bit concerned well Tia was meant to be home at six we was getting a
92		bit concerned about seven do you know what I mean we was looking out the door
93		<xxxxx> at the front er think it was about quarter past seven half seven or
94		something like that where I'd mentioned to Chris earlier on in the day because
95		Chris come home at half past two erm er just about the fair so what we'd done we
96		got in in the car and went down to the funfair where Tia I thought she might have
97		snuck out or something snuck off to the funfair saying she was going wherever or
98		whatever er we went down to the funfair erm was it Orpington wasn't it
99	DS:	er no [it's]
100	SH:	[was] it erm
101	DS:	Ashburton
102	SH:	Ashburton
103	DS:	Ashburton Park
104	SH:	Ashburton Park went down there er I walked I walked the perimeter of the funfair
105		round the outside of the fence just to see if I could see her me and Chris er couldn't
106		see her so we went up to a security guard er by the main gates he let we explained

107		what happened my daughter my granddaughter might have snuck off in there so he
108		went he let us in there to have a look around we was in there for a good hour
109		walked all the way around Chris went one way I went the other looked at every
110		single ride the arcades er stood by the ghost train things ghost tunnels we looked
111		everywhere basically erm then we come out and then we went to Natalie's literally
112		went to Natalie's and then after that we didn't know what to do I didn't know
113		whether to report her missing we'd been back and forth we went from the funfair
114		no we went from the funfair we come back home and then we went to Natalie's
115		straight from there because we thought she might have like come back but on the
116		way back from the funfair I noticed and Chris noticed that there was a one thirty
117		bus you know two and two together in my head I come up one thirty one thirty
118		comes down to here so we basically followed the bus just in case she was on the
119		bus somewhere erm didn't work out so we went we went to Natalie's and we went
120		and reported it straight to the police
121		[…]
122	SH:	oh it's been horrible it's been horrible do you know what I mean the family's we're
123		stuck inside here do you know what I mean we got all the er papers outside all
124		putting accusations down and do you know what I mean bad mouthing everyone
125		it's just what you don't need you know I know they're trying to help and that but
126		they can help in other ways do you know what I mean by finding her back get her
127		home for god's sake
128		[…]
129	SH:	Tia wants to come home to a loving family which she's got
130	DS:	yeah
131	SH:	you know it's just everyone's silly do you know what I mean all the hearsay in the
132		papers they've been digging up on previous which has got absolutely nothing to do
133		with it and they've even got that arse about face
134	DS:	everyone everyone's [got everyone's] got a shady past =
135	SH:	[everyone's got] = they they everyone's got
136		like a shady past yeah do you know what I mean that's ten years ago for god's sake
137		do you know what I mean they've gone to my dad they've seen my dad he's got
138		everything arse back to front and you know what I mean they just they're just going
139		on what he's saying and when they say you say something they twist your words do
140		you know what I mean I'd love to sit there and they asked me stupid questions
141		yesterday like oh did you do anything and I said well no I bloody didn't excuse my
142		language but no I didn't I'd never think of that I loved her to bits she's like my own
143		daughter for god's sake we had that sort of relationship it was that sort of thing it
144		was just do you know she wanted it she got it she's not not she's got a loving loving
145		home she'd never gone without anything so I can't work out what the hell's going
146		on they're all out there they want to report the truth
147	DS:	yeah
148	SH:	you know what I mean just =
149	DS:	= just report [that we want Tia home nothing else<xxx>]
150	SH:	[just reporting what that they're talking to]
151		people round here that don't even know us er getting things off them but they
152		don't know anything do you know what I mean they're just going on hearsay
153		everyone going on hearsay
154		[…]
155	SH:	well if they believe what they read in the papers they can do whatever they like
156		because I know deep down in my heart that Tia walked out of my house she walked
157		out of there and I know damn well because she was seen walking down the path
158		I know she made that track down to that way what happened after that is I don't
159		know I just I and I wasn't the last person to see her because the last person to see
160		her was the one walking down the pathway

161 WT: now tomorrow's going to be a week that she's been missing how do you move
162   forward from here
163 SH: I don't know
164 DS: we've just got to keep hoping that that it doesn't last till tomorrow we don't want it
165   we want her now we want her found now we don't want it to last we don't want
166   another week we don't want no more days it's not it's the way it's got to be she's
167   got to come home now
168 SH: I feel they're pointing the finger at me because it because until the other day it was
169   known that I was the last person to see her but I wasn't the last person to see her
170   you know what I mean they've gone on hearsay everything like that it's not about
171   me it's about Tia this is all about Tia and we've got to her home man we've got to
172   get her home I just don't know what more to do
173   […]
174 SH: Tia come home baby come on come and eat your dinner I want my ten pound back
175   for my garden [we love you baby and want you back please]
176 DS: [just come home come back to normal there's] there's nothing it's
177   going to be back to normal just come home and be back in the family Tia's part of
178   the family come home nothing's changed no one's in trouble come home

APPENDIX 2: TRUTHFUL TRANSCRIPTS

CLIP 5: DAVID SHARP

Clip 5 is from the same criminal case as Clip 4, relating to the disappearance of twelve-year-old Tia Sharp. The speaker in this case, however, is Tia's uncle, David Sharp. As noted in 5.1.4, Stuart Hazell – Tia's grandmother's boyfriend – was convicted of Tia's murder on the basis of multiple pieces of incriminating evidence. David Sharp, indicated by the initials "DS", is the only speaker in this clip.

1	DS:	first of all my message to Tia I just want you to come home erm you're not in any
2		trouble anyone who knows where she is or any information please come to us come
3		phone the police anything erm and I want to say thank you to the police for doing
4		everything that they can and the public for being our support and being out there
5		day and night erm I urge you not to stop I want Tia found so please do what you're
6		doing

CLIP 6: DANIELLE WILSON

15-year-old Megan Stammers was found a week after her disappearance was reported. She had travelled by ferry to France with her 30-year-old teacher Jeremy Frost. Frost was eventually arrested and charged with abduction and five counts of sexual activity with a minor. Megan's mother, Danielle Wilson, and her stepfather, Martin Stammers, both spoke at the press appeal. Below is the statement offered by Danielle Wilson:

1	DW:	I just want to give a message to my daughter sorry sweetheart I don't care what
2		you've done or why you can't tell me I'm in pieces and I just want you home erm
3		your brother is absolutely devastated Luke is beside himself he wants you back
4		Ashton keeps asking where you are er Molly's walking round in a daze she won't
5		leave my side she just keeps saying when you gonna come home erm and from me
6		to you sweetheart you know that your adorable princess erm wants her adorable
7		mermaid back so please darling just do anything text me ring me erm send me a
8		message I've sent you a message on facebook erm just do anything I've put you
9		know the num- phone number hasn't changed at home so just ring please
10		sweetheart

CLIP 7: MARTIN STAMMERS

This clip relates to the same criminal case as the statement in 5.2.2. In this case, however, the speaker is Martin Stammers, Megan's stepfather:

1	MS:	er I would just like to reiterate everything that Danielle has just said erm we are a
2		family unit working together er strength is coming strength is coming from within
3		all of us her family her close friends are striving so hard so I'd like to thank all of
4		them thank the people who are supporting us out there on social networks twitter

5		facebook please keep posting please keep tweeting keep please keep re-tweeting
6		Megan we had a date on Saturday and and and we didn't make it babes that offer's
7		still there sweetheart I just want you to come home safe and well babes please

CLIP 8: IAN FYLES

Approximately one month after the disappearance of 19-year-old Jason Fyles, his body was found in the River Tyne. His death was ruled by a coroner as accidental. Jason's brother and sister Shaun and Kimberley, plus his mother Caroline and father Ian, attended the press appeal. Both Ian and Caroline speak, but Caroline only briefly. The analysis will focus on Ian's speech content.

1	IF:	Jason you're more than just a son and a brother you're our friend Kieran misses you
2		greatly Sean's head – heart always rules his head he wanted to be the first here to
3		help find you we miss you greatly your wry sense of humour your keen wit you just
4		you've got to know that we love you and miss you Aunty Wendy Steve Aunty
5		Francis they all came to Newcastle to help look for you Wendy and Steve are
6		looking forward to your next visit you can test drive their new oven erm their new
7		dog is a handful it's quite cute and probably needs a firm hand to keep it in line
8		Nana and Grandad they send their love and they're looking forward to seeing you
9		they're looking after our dogs Petra and Lilly so they're probably overfed and
10		probably need lots of walks and all the rest of the family everyone else who knows
11		you they're thinking of you and missing you there's too many to mention really
12		we'd like to take this opportunity to thank all of Jason's friends students lecturers at
13		Newcastle University for all their warmth help and support we really appreciate all
14		the efforts you've done for us and let's just say to anybody watching erm if you've
15		seen Jason or you think you know where he is then please don't hesitate to contact
16		the police
17	CF:	please sweetheart let us know you're safe

APPENDIX 3: CBCA CRITERIA GUIDELINES

The following guidelines were adapted from Vrij (2008: 209-212):

General Characteristics

Criterion 1: Logical Structure. Logical structure is present if the statement is coherent and does not contain any logical inconsistencies or contradictions. Logical consistency is not the same as plausibility. Logically consistent statements may sound implausible.

Criterion 2: Unstructured Production. Unstructured production is present if the information is presented in a non-chronological order. Unstructured reproduction occurs in particular when people are upset. For example, highly emotional adult rape victims tend to give their account in unstructured ways (Winkel, Vrij, Koppelaar, & Van der Steen, 1991). Someone may start by explaining the core of the event ("His hands were all over me"), may then go back to the beginning ("He looked OK when I first met him"), and then give information about events that happened later ("He had a cynical smile on his face when he ran away") before going back to an earlier stage of the event ("I should not have been so naïve"). This criterion is less useful when someone has already told the story a couple of times or when someone has frequently thought about the event, as this will result in telling a story in a more chronological order.

Criterion 3: Quantity of Details. This criterion is present if the statement is rich in detail and includes specific descriptions of place, time, persons, objects, and events. For example, the following statement would fulfil this criterion: "I used the cash machine on Albert Road near the traffic lights. It was getting dark, and it was drizzling and cold. It was quite busy near the cash machine, at least eight or nine people were standing there. And then, after I took my money and walked away, this guy suddenly appeared, pulled a knife and touched my breasts. I was too scared to do anything and nobody seemed to notice what was going on.

Specific Contents

Criterion 4: Contextual Embedding. A contextual embedding is present if the events are placed in time and location, and if the actions are connected with other daily activities and/or customs. For example, a victim describes that the crime occurred in a park at lunch-time when the man was walking his dog.

Criterion 5: Descriptions of Interactions. Naturally occurring events typically involve a sequence of actions and reactions, and Criterion 5 addresses this issue. This criterion is fulfilled if the statement contains information that interlinks at least the alleged perpetrator and witness. For example "I said go away but he didn't, he just smiled, and then I started crying" would fulfil this criterion.

Criterion 6: Reproduction of Conversation. Most naturally occurring events involve speech. Criterion 6 focuses on this aspect. Reproduction of speech is

present if parts of the conversation are reported in the original form or if the different speakers are recognisable in the reproduced dialogues. This criterion is not satisfied by a report about the content of a dialogue; it is only satisfied when there is a virtual replication of the utterances of at least one person. Thus, "He said: Are you okay, you look so pale?" fulfils this criterion but "He asked how I felt" would not.

Criterion 7: Unexpected Complications during the Incident. This criterion is present if there are elements incorporated in the statement that are somewhat unexpected. For example, if the witness mentions that the alleged perpetrator's car alarm went off at the time of the incident, or that the alleged perpetrator had difficulty with starting his car.

Criterion 8: Unusual Details. Unusual details refer to details of people, objects, or events that are unique, unexpected or surprising but meaningful in the context. Examples are a witness who gives a description of a tattoo on the perpetrator's arm, or a witness who says that the perpetrator had a stutter.

Criterion 9: Superfluous Details. Superfluous details are present if the witness describes details in connection with the allegations that are not essential for the accusation, such as a witness who says that the alleged perpetrator tried to get rid of the cat that entered the bedroom

Criterion 10: Accurately Reported Details Misunderstood. This criterion is fulfilled if the witness mentions details that are beyond his or her comprehension, for example a child that describes the adult's sexual behaviour but attributes it to a sneeze or to pain.

Criterion 11: Related External Associations. A related external association is present if events are reported that are not actually part of the alleged offence but are merely related to the offence, for example, if the interviewee says that the perpetrator talked about sexual affairs with other women.

Criterion 12: Accounts of Subjective Mental State. This criterion is present if the witness describes the development and change of his or her feelings experienced at the time of the incident and her relief when it was all over. This criterion also includes reports of thoughts, such as a witness mentioning that she was thinking about how to escape while the event was in progress.

Criterion 13: Attribution of Perpetrator's Mental State. This criterion is present if the witness describes the perpetrator's feelings, thoughts, or motives during the incident. "He was nervous too, his hands were shaking"; and "He thought about the possibility that I would start screaming, because he closed all the windows and played loud music before he started to touch me", and so on.

Motivation-Related Contents

Criterion 14: Spontaneous Corrections. This criterion is fulfilled if corrections are made or information is added to material previously provided in the statement without having been prompted by the interviewer. "It was about two o'clock, or wait, it must have been later because it was already getting dark" is an example of a correction, and "We were in his car and he drove fast, by the way it was a Volvo, and he drove so fast that he almost failed to stop for a traffic light" is an example of an addition.

Criterion 15: Admitting Lack of Memory. This criterion is present if a witness admits a lack of memory by either saying "I don't know" or "I don't remember" or by giving an answer such as "I forgot all about this except for the part when we were in the car". Like Criterion 14, this criterion is only present when the utterance is made without being prompted by the interviewer. Thus, saying "I don't know" or "I can't remember" as an answer to a direct question ("What was the colour of his shirt?") does not count as admitting lack of memory.

Criterion 16: Raising Doubts About One's Own Testimony. This criterion is present if the witness indicates that part of his or her description sounds odd, implausible, unlikely, etc. (e.g., "You know, this thing is so weird and he seemed to be such a nice man – the wChole neighbourhood likes him – that I thought nobody would ever believe me").

Criterion 17: Self-Deprecation. Self-deprecation is present if the witness mentions personally unfavourable, self-incriminating details, for example, "Obviously it was stupid of me to invite him to my home."

Criterion 18: Pardoning the Perpetrator. Pardoning the perpetrator is present if the witness excuses the alleged perpetrator for his or her behaviour or fails to blame the alleged perpetrator, for example, a girl who says she now feels sorry for the defendant possibly facing imprisonment because she does not think it was his intention to hurt her.

Offence-Specific Elements

Criterion 19: Details Characteristic of the Offence. Criterion 19 is present if a witness describes elements that are known by professionals to be typical for this type of crime, but are counterintuitive for the general public. Tis criterion is likely to be more present in truthful statements because these elements are assumed to be too difficult to fabricate (Köhnken, 1996, 1999, 2004; Marshall & Alison, 2006).

APPENDIX 4: ADAPTED CRITERIA GUIDELINES

The following guidelines were taken from Lansley (2017: loc. 973-1045):

Criterion 1: Lacks Coherence. The account is incoherent – it is logistically impossible, e.g. puts a person at different places at the same time.

Criterion 2: Linear (in time), Overly-Structured Reproduction. When we hear rehearsed lies about past events they are often reproduced in a linear, "train-track" format […] True episodes, freely recalled, tend to look more unstructured and go forward and back in time and off at tangents […] This is because memory is a reconstructive process – we rebuild stories that have happened to us from scattered parts of the brain, spontaneously, and rarely in the same sequence as the event itself. Sometimes we make mistakes. This is normal forgetting and should not be confused with deception.

Criterion 3: Inappropriate Detail (in context with what we know about memory). We know from research that memory works best for events of personal or emotional significance…Our (and other) research has revealed that there can often be a "shape" to detail, consistent with what we know about memory, in true (pattern 1) and false (patterns 2 and 3) accounts as illustrated in figure 12.
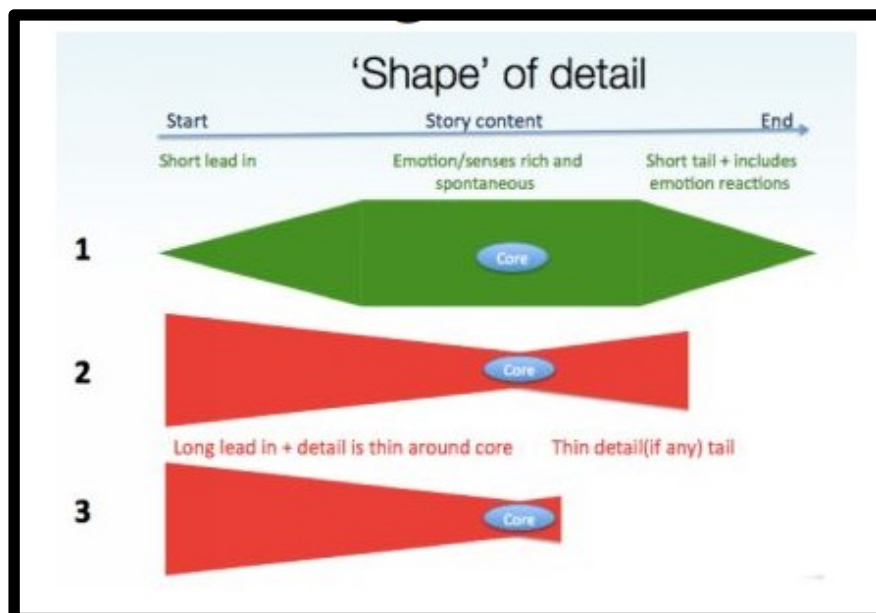
Care is needed here as I have also seen truthful accounts shaped like the third track above when the story is embarrassing and the storyteller wants to bring it to an end. So simply remember this is **only one potential PIn** (even if added to others within this section it is still only one channel). We need **clusters of three PIns across two channels** for us to be concerned.

Criterion 4: Lacks Context. False stories often lack the contextual detail picked up by our senses (smells, sights, sounds, tastes, temperatures, weather, etc.) as liars often forget to rehearse such detail. True statements are often peppered with these details. Lack of contextual embedding of the recalled story is a potential PIn.

Criterion 5: Lacks Interactivity. True stories will often include linked interactions between people and objects, including paraphrased summaries or even verbatim quotations of conversations. Where these absent, and can't be explained by the ABC, then it's a PIn.

Criterion 6: Lacks Personal Credibility/Memory Slurs - e.g. admittance of poor memory recall, spontaneous correction of memory errors (without prompting) and self-deprecation is not really a problem. Where all such self-criticisms are lacking it may suggest the teller is in *convince* mode. It's a PIn if it's inconsistent with the ABC.

Criterion 7: Lacks Accounts of Mental States (self and other). True stories often contain commentary about self and others, e.g.:

1. "I was trembling as I walked through the door."
2. "My heart started pounding when I saw her."
3. "I was unsure about which car to buy."
4. "He looked scared to death."
5. "She seemed confused when I called his name."
6. "He seemed furious as he walked into the bar."

These are often absent from stories which have been created to mislead you.