

CAN LANGUAGE BE USEFUL IN DETECTING DECEPTION? THE LINGUISTIC MARKERS OF DECEPTION IN THE JODI ARIAS INTERVIEW

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Abstract

Linguistic indicators of deception are often overlooked because it is commonly assumed that liars can control their speech and are therefore unlikely to leak clues which may reveal their deception. However, it is widely believed that language is a primary component of deception, and that deceptive speech is strategically different from that of truthful speech. Furthermore, although deceivers may have leverage in controlling the overall content of the story, they can reveal a great deal about their underlying cognitive state through the language they use. Given that the majority of research in this area has been carried out by psychologists, studying the relationship between language and deception is crucial. This project therefore examines whether language can be a useful tool in detecting deception from a forensic linguistics perspective. The case under investigation is that of Jodi Arias, who murdered her ex-boyfriend, Travis Alexander, in 2008. Upon her arrest, Arias appeared in a television interview in which she fabricated a story regarding the murder. Using a Discourse Analysis approach, this research analyses the features of linguistic deception in Arias's interview. The findings reveal that Arias used a number of strategies to deceive, including linguistic hedges and preference for negative expressions, confirming previous findings into deceptive speech.

Keywords: Deception, Lying, Language, Jodi Arias, Discourse Analysis.

Introduction

The murder of Travis Alexander in 2008 by his ex-girlfriend, Jodi Arias, ignited prolific media attention. Arias had stabbed Alexander twenty-seven times, slit his throat, and shot him. Initially, Arias denied any involvement with the death. In 2009, whilst held as a suspect, Arias appeared in an interview for the CBS news and crime documentary series *48 Hours*, in which she revealed the second version of her story, where she lied about the events that took place surrounding the murder. She was found guilty of first-degree murder in 2013.

An abundance of evidence was presented by the prosecution counsel, which highlighted the inconsistencies and contradictions of Arias's account by comparing witness testimonies, phone records, police calls, interrogation footage, and forensic evidence. Arias later admitted to killing Alexander. For the purposes of this study, this evidence lends significant weight to the assumption

that Arias intentionally deceived during her interview. I do acknowledge, however, that a): this stance rests on the strength of the conviction, and b): intent cannot be wholly instantiated (Vrij 2001).

There are two motivations for undertaking a study on language and deception: firstly, the shortcomings of existing deception research, and secondly, the need for a linguistic perspective of deception. A weakness of existing deception research is that deception is narrowly viewed from the vantage points of psychology and sociology (Galasinski 2000, 17). Furthermore, research is often drawn from synthesised laboratory data which does not consider deception under realistic, high-stakes situations (Adams 2002, 3). Experimental studies are, at best, 'recreations' of events that attempt to emulate reality (Shuy 1998, 76). Moreover, studies on deception are devoted to non-verbal, as opposed to verbal, cues to deception, such as physiological arousals (Schafer 2007, 12). However, researchers contend that there are only a few non-verbal indicators that can predict deception with any degree of certainty (ibid., 13).

The necessity for linguistic research on deception is made more apparent by the fact that most of the pioneers of deception research are social psychologists and physiologists. Research has therefore been focused primarily on features 'accompanying language' (Shuy 1998, 74). What is needed, however, is an examination of the language itself (ibid.). Language is a 'key component of deceptive behaviour', yet numerous researchers have highlighted the fact that relatively little attention has been given to studying the language used in deceptive communication (Buller et al. 1996, 269). It is argued that language enables the detection of deception because it is the primary mechanism by and through which a deceptive message can be passed from the deceiver to the target (Galasinski 2000, viii). In addition, markers of deception are often said to be 'leaked' verbally (Fitzpatrick & Bachenko 2010, 183-4). Language may, therefore, be an important indicator of deception, and linguistic analyses could potentially determine the veracity of statements through the consideration of important linguistic and structural features (Armistead 2011, 305). This research paper endeavours to examine whether language can be useful in detecting deception by investigating the linguistic markers of deception in Arias's interview. Using linguistic theories of deception, I will explicate how Arias used language to deceive during her CBS *48 Hours* interview.

Defining deception

Galasinski defines 'deception' as 'a communicative act that is intended to induce in the addressee a particular belief, by manipulating the truth and falsity of information' (2000, 20). His definition is

underpinned by the premise that deception is intentional, because unintentionally misleading messages are described as mistakes, gaffes, and the like (2000, 18). According to Galasinski, there are two types of deception: passive and active (ibid.). The former occurs when the deceiver does not say anything, thereby inducing a belief in the hearer; the latter occurs when the deceiver offers false information in lieu of true information (Galasinski 2000, 22). Galasinski further divides active deception into two subcategories: implicit and explicit. Deception which is both active and explicit is classified as 'lying', and lying is considered to be the 'prototypical act of deception' (ibid.). He further adds that lies are 'the only straightforward way of deceiving people' (ibid., 26). With respect to the current study, Arias engaged in a type of active deception, as she did not omit information, nor remain silent, but instead offered a fabricated version of events in place of the true information. Specifically, according to Galasinski's definition, she was 'lying', since her deceptive communication was active, explicit and delivered with the intention to mislead the interviewer as well as the wider audience. 'Lying' is, therefore, the most relevant definition in this instance, and is the one I choose to adopt here.

Data and methodology

The data comprises of my own transcription of a segment extracted from the CBS *48 Hours* interview, between Arias (at the time a murder suspect) and the CBS *48 Hours* interviewer, Maureen Maher. The original interview took place in 2008, but was broadcast on air in March 2009 and subsequently included in the documentary 'Picture Perfect: The Trial of Jodi Arias' (CBS News 2013). The segment analysed begins at approximately 20:33 of the CBS News documentary (2013), with: 'I heard um a really loud er pop ...', and ends with '... that th-they think this is a fabrication', being approximately 5 minutes and 21 seconds of the 43 minute documentary, of which 160 seconds is solely Arias's speech. Prior to this interview, Arias changed her story several times, originally claiming that she had not seen Alexander since April (CBS News 2013). This interview documents Arias's second version on what happened during the 'home invasion'. According to Arias, she witnessed two masked intruders breaking into Alexander's home and attack him. She claimed she was almost killed but managed to escape.

Whilst the video recorded data is more realistic than laboratory data, it is still not 'naturally-occurring' in the same sense as ordinary conversation. Nevertheless, this study analysed data from a high-stakes situation – a requirement that is rarely fulfilled in the field of deception detection (Fornaciari 2012, 33). This study also addressed Davis et al.'s call for more research to be conducted on deception in criminal suspect interviews in particular (2005, 684).

The methodology adopted is Discourse Analysis, a method of analysing written (and spoken) texts, examining both the lexico-grammatical resources of the language system as well as the functions of the utterances in the contexts in which they are embedded (Galasinski 2000, 13). Discourse Analysis was deemed to be the most suitable for this study as it allows for the analysis of language as a means of deception that goes beyond the semantics or syntax (Galasinski 2000, 12). Furthermore, Discourse Analysis studies language in 'actual, attested, authentic instances' in its entirety, and not merely in isolated, hypothetical or intuitive usages (Georgakopoula and Goufsos 1997, 22).

The project is thus driven by two aims: to investigate whether language can be useful in deception detection; and secondly, to investigate deception in a forensic context, approached from a linguistic perspective. However, this will be coalesced with psychological insights, because both non-verbal and verbal deception cues rely on cognitive processes (Schafer 2007, 12).

Analysis and discussion

The analysis draws on the work of Bachenko et al. (2008), utilising the following linguistic indicators of deception: 1) 'lack of commitment to a statement' (2008, 43), which covers linguistic hedges such as equivocation and specificity reduction, and 2) 'preference for negative forms' (ibid.), which includes negation, negative emotion words, lack of memory, and raising doubt about one's own testimony. A third section, 'additional uncategorised markers of deception', will examine other features suggestive of deception, including sense words, other-oriented pronouns and references, and speech disfluencies. Since no individual cue indicates deception, examining a 'constellation of cues' (Schafer 2007, 40), allows for the analysis of multiple deceptive strategies utilised by Arias.

1. Lack of commitment to a declaration or statement

Linguistic hedges

Hedging refers to the use of particular terms or structures that signal a lack of full commitment to an utterance, sometimes referred to as 'content mitigation' (Fraser 2010, 201). The full value of the utterance becomes attenuated (ibid.). Hedging is considered an intentional act because 'the speaker chooses a linguistic device over and above the propositional content of the message which affect[s] the interpretation of the utterance' (Fraser 2010, 202). Deceivers 'avoid providing the information which is expected or required [...], thereby creating vagueness and or/evasion' (ibid., 206), in order to maintain credibility (Buller & Burgoon 1996, 217).

(i) Equivocation

Equivocations are one type of linguistic hedges. Researchers have found a positive relationship between equivocation and deception in oral narratives (Adams 2002, 4). This appears to be congruent to my data, as Table 1 shows that Arias’s use of equivocations reveals a lack of certainty in the facts and events that she allegedly witnessed.

Table 1

| Equivocations | Examples |
|----------------------|--|
| ‘believe’ | ‘I believe that they were there to kill him’ |
| ‘to my knowledge’ | ‘ To my knowledge , nothing was missing from the house’ |
| ‘could only assume’ | ‘I could only assume yes’ |
| ‘guess’ | ‘And the guy came back in and got <u>really</u> angry at me I-I guess ’ |
| ‘think’ | And I think ’ |
| ‘naïve belief’ | ‘there was a naïve belief ’ |
| ‘pretend’ | I could pretend like it didn’t really happen’ |

These equivocal constructions suggest Arias is not totally committed to her narrative, but instead, ‘equivocate[s] between possible options’ (Adams 2002, 4). These equivocations also consist of non-factive verbs, defined as verbs that ‘do not assign a truth value to the proposition expressed’ (Bachenko & Schonwetter 2007, 5). ‘I could only assume [...]’ features a double hedge consisting of the modal auxiliary ‘could’ and non-factive verb ‘assume’. Arias also uses the non-factive verb ‘guess’, which occurs in the sentence-final position of a parenthetical construction (Fraser 2010, 204), again revealing a lack of conviction in her statement. Tentative constructions such as these ‘imply a noncommittal to the content of the lie, thereby mitigating negative judgement of personal character or attributions of blame’ (Vrij & Heaven 1999, cited in Duran et al. 2010, 447).

Johnson and Raye (1981) posit that self-generated information, i.e. fabrications, are the result of cognitive processes and are consequently associated with more ‘internally-generated cognitive details and subjective idiosyncratic information’ (cited in Porter 1992, 17). The following statement by Arias is information that has been internally-generated:

‘I believe that they were there to kill him. Um because they didn’t take anything’.

This is self-generated information that uses the equivocal phrase ‘I believe’ at the start of the sentence, followed by the subordinating conjunction ‘because’ to establish a proposition of causation, or a ‘cause and effect’ line of argument. Essentially, however, Arias’s statement is an unproven, subjective opinion, prefaced with the non-factive verb ‘believe’, which leaves the truth or untruth of the proposition unknown. These equivocations are a form of ‘attitudinal hedges’ because the subjective nature of the utterance (Wilamova 2005, 88).

(ii) Specificity reduction

Arias employs strategies of vagueness and reduction of specificity in the content of her propositions. These strategies are typically used in order to withhold truthful information (Burgoon et al. 1996, 269), as they allow speakers to avoid direct or relevant answers and manipulate the level of detail (Fuller et al. 2012, 122). Arias’s utterances implicitly reveal ‘a lack of commitment in discourse’ (Adams 2002, 4). Knapp et al. (1974, 25) suggest that deceivers make less factual statements. Table 2 shows Arias’s utterances that reveal a lack of specificity.

Table 2

| Specificity-redundancy | Utterances with lack of specificity | Effect |
|------------------------|--|--|
| some | ‘Um h-he had some blood all over the floor and there were some just coming down on his arms’ | Deceivers tend to use more over generalized and ‘allness’ terms such as ‘every’, ‘none’, ‘all’, ‘always’ (Shuy 1998, 74). Arias uses the indefinite quantifier determiner and pronoun ‘some’ to avoid describing the blood loss in more detail’. |
| forever and ever | ‘Um I drove forever and ever until I was in the middle of the desert’ | Bachenko et al. (2008, 44) call this type of utterance a ‘miscellaneous phrase’, which Arias employs to avoid giving an exact location or revealing which route she took after she went on the highway through the use of an indefinite time phrase. |
| sort of | ‘Um because he was still sort of on his hands and knees’ | The use of the hedge word ‘sort of’ signals Arias’s lack of tentativeness and support Knapp et al.’s (1974, 25) observations that deceivers make more non-specific statements. |
| anybody | ‘I didn’t call anybody or tell anybody ’ | Arias uses the amorphous, indefinite pronoun ‘anybody’ to avoid pointing to a specific referent. |

2. Preference for negative expressions

2.1. Negative forms

(i) Negation

Deceivers can use negation to state what did not happen, as opposed to what did happen, which is questionable to analysts (Adams 2002, 4). Skillicorn and Little describe negation as ‘a kind of omission’ (2010, 28), because particular, affirmative details are omitted. Table 3 lists the negative forms Arias uses.

Table 3

| Negative Form | Examples | No. of occurrence | % No. of occurrences |
|--|---|-------------------|----------------------|
| Contracted negation (Adams 2002) | <ul style="list-style-type: none"> • ‘Um because they didn’t take anything’ • ‘but I didn’t see her stabbing him’ • ‘I didn’t call anybody or tell anybody’ • ‘I could pretend like it didn’t really happen’ | 4 | 31% |
| Negative quantifier pronoun | <ul style="list-style-type: none"> • there was nothing missing from this house’ • ‘and nothing happened with the gun’ | 2 | 15% |
| Negative morpheme (Banchenko et al. 2008) | <ul style="list-style-type: none"> • ‘I-it like unbelievable’ | 1 | 8% |
| Negative-emotion word/ affect words (Skillicorn and Little 2010) | <ul style="list-style-type: none"> • ‘Travis was um was screaming’ • ‘And um they just kept arguing’ • ‘I was terrified’ • ‘I was scared for my life’ • ‘Really ashamed for the way I left him there’ • ‘th-they think this is a fabrication’ | 6 | 46% |
| | | Total: 13 | 100% |

In response to open-ended questions, people normally ‘relate the actions they took versus the actions they did not take’ (Schafer 2007, 51). By using negated constructions, Arias focuses on what did *not* happen and what she did *not* do (ibid., 52). Negation requires Arias to ‘recall’ false details from ‘an already distorted reality’ (Duran et al. 2009, 451).

However, Hancock et al. (2008) suggest the use of negations may not in fact be a strong indicator of deception. They argue that deceivers should typically delimit their use of negation words, since these require more precision and specificity, which increases the likelihood of contradicting oneself and being caught lying (2008, 4).

(ii) Negative emotion words/negative affect

Newman et al. (2003) posit that deceivers use negative emotion/affect words more frequently than truth-tellers (cited in Skillicorn & Little 2010, 27). Burgoon et al. (2003) also found that deceivers tend to use 'emotional expressiveness'. Arias used 46% of the total number of occurrences of negative emotion words, perhaps as a result of 'guilt-related feelings' (Newman et al. 2003, cited in Arcuili 2010, 399). According to the Pennebaker model of deception, Arias's use of 'ashamed', towards the end of her account of the intrusion story, may be significant because emotion words expressed in the concluding part of a statement are weakly associated with veracity (cited in Skillicorn & Little 2010, 29).

2.2. Lack of memory

Showing a lack of memory is another verbal indicator of deception (Shuy 1998, 77, see also Bachenko et al. 2008). The following utterances reveal the partial, implicit references to lack of memory by Arias:

- 1) 'The **next thing I remember**'.
- 2) 'I was **sort of** was just **trying to come around** and was **trying to re-orient myself** to what was going on'.
- 3) '**I think** there was a naïve belief'.
- 4) '**I could pretend like it didn't really happen**'.

Arias may have strategically described a lack of memory, to avoid facing a difficult interrogation, especially during the initial part of her story, as this was proven to have been the period of time in which she killed Alexander.

Deceptive accounts may also contain unexplained gaps of time to indicate lack of memory. There is also an unexplained lapse of time, which Schafer (2007, 44) refers to as 'temporal-spatial lacunae'. Arias does not explain or provide any details as to what occurred in between taking photographs in the shower to lying next to the bathtub when she regained consciousness:

'I heard erm (.) a really loud (0.5) er pop **and (.) the next thing I remember** I was lying lying next to the bath tub [...]'.

Arias may have tried to circumvent certain events that she wanted to keep concealed; importantly because Arias was said to have attacked T.A during this period of time. The fact that details of arguably the most critical part of the account are left unexplained may indicate deception.

2.3. Raising doubts about one's own testimony

This is an important indicator of deception according to Vrij et al. (2008, 212). Arias raises doubts about her own testimony: she mentions that her account may appear implausible or unlikely, or that others will question the veracity of her claims (see examples 1-3 below). This is a common feature of deceptive communication, as speakers attempt to 'neutralise' others' suspicions of veracity and believability by raising doubt to their own story (Knapp et al. 1973, 5).

The following examples exemplify Arias's attempts to raise doubts about her own testimony:

- 1) 'I-it like **unbelievable**'.
- 2) 'And I think there was a naïve belief that **I could pretend like it didn't really happen**'.
- 3) 'And **I know that people will look at me** and say [...] **th-they think this is a fabrication**'.

In these examples, Arias alludes to the fact that her story is hard to believe, through the explicit use of the pejorative adjective 'unbelievable', noun 'fabrication' and unactualised constructions such as 'like it didn't really happen'. In example (2), Arias also raises doubts about the occurrence of her propositions, by using the modal auxiliary 'could', in addition to the contra-factive verb 'pretend'. Aarts et al. (1994, 98) posit that such strategies of deception suggest that the propositions are untrue. A further marker of deception in example (3) is that she predicts in advance what people will say about her through an irrealis mood – which indicates unactualised events, or events that have not yet occurred (Huang and Huang 2003, 1). Knapp et al. (1973, 11) suggest that deceivers tend to use evaluative, self-interest statements that assert that 'costs' or problems will accrue to the deceiver. In Arias's case, she states that people will criticise her for leaving Alexander on his own (Knapp et al. 1973, 11).

3. Additional markers of deception

Three further linguistic indicators of deception are worthy of investigation: sense words, other-oriented pronouns and references, and speech disfluencies.

3.1. Sense words

Hancock et al. (2008, 8), maintain that deceivers are more likely to use sense words (for example, describing touch, sound, smell, sight, etc.), in an attempt to make the story appear more credible. Consistent with this hypothesis, Arias uses an observable number of sense words (most notably of sight) which made up 61.5% of the total number of occurrences. Even though providing sensory details is cognitively challenging for a person who is fabricating details (Vrij 2000, cited in Hancock et al. 2008, 8), Arias essentially goes into ‘persuasive mode’ by making reference to what she saw, heard and felt. This technique is often used in an effort to avoid eliciting scepticism, by incorporating the finer details (Hancock et al. 2008, 8). Table 4 lists the sense words used by Arias.

Table 4

| Sense words | Examples | No. of occurrences | % No. of occurrences |
|----------------------------------|---|--------------------|----------------------|
| see: saw, see, look, looked | ‘I just-just saw two individuals in the bathroom’. ‘but I didn’t see her stabbing him’. ‘I heard um’. ‘a really loud (0.5) er pop ’. ‘I was terrified ’. ‘and I was scared for my life’. | Sight: 8 | 61.5% |
| hear: heard, pop | | Hear: 2 | 15.4% |
| feel: terrified, scared, ashamed | | Feel: 3 | 23.1% |
| | | Total: 13 | 100% |

3.2. Other-oriented pronouns and references

Research suggests that deceivers use more second and third-person pronouns (‘you’, ‘she’ ‘he’, ‘they’, ‘their’) in order to create an ‘other-focus’ and to distance themselves from the lie (Hancock et al. 2008, 4). This argument is not supported in this exercise, because Arias used a higher number of self-oriented references, as shown in Table 5 below.

A possible explanation for this discrepancy is that, in Arias’s case, it was important to accentuate the fact she was trying her utmost to help Alexander. In doing so, she utilised the self-oriented pronoun ‘I’ at a higher frequency than other-oriented references in order to demonstrate ownership of her actions. In addition, Skillicorn and Little’s (2010) deception model offers a useful explanation for the surprising increased usage of first-person pronouns. Since the interviewer asked Arias a number of open-ended questions, it was often necessary for Arias to respond with utterances beginning with ‘I’

(Skillicorn & Little 2010, 30). Further, by using the pronoun ‘I’, Arias simultaneously achieves two functions: she answers the questions and, at the same time, provides justifications (ibid.).

Table 5

| | Other-oriented references | Self-oriented references |
|--------------------------------|--|--|
| Pronouns | <p>‘they’ (x8) ‘he’ (x10) ‘him’ (x6) ‘her’ (x2) ‘his’ (x3) ‘she’ (x2) ‘anybody’ (x2)</p> | <p>‘I’ (including ‘I’m’) (x40) ‘me’ (x 4) ‘myself’ (x 1) ‘my’ (x2) ‘you’ (referring to herself)(x2)</p> |
| Nouns/ Noun Phrases | <p>‘Travis’ (x4) ‘two individuals’ (x1) ‘this guy’ (x1) ‘the guy’ (x1) ‘people’ (x1)</p> | |
| | Total No. of occurrences: 41 | Total No. of Occurrences: 49 |

Arias returns to the topic of her leaving Alexander and of her escape a total of 5 times. This appears consistent with Duran et al.’s claim that deceptive speech contains more given information (2010, 453) – information already supplied or established in the discourse (SIL 2004) – relative to new information presented. Arias tries not to incriminate herself in the crime, so she uses a strategy of returning to particular topics and details in the interview (in this case her escape story), to emphasise that she was not present during the actual murder. Arias does not use this repetition explicitly, but instead focuses on a few focal semantic points. This may be due to content complexity (Vrij et al. 2003, 12): Arias is attempting to remain consistent to what she has already said.

3.3. Speech disfluencies

Since details in deceptive accounts are often constructed and cued from the developing context, speakers often provide more new information and exhibit spurts of language redundancy (Duran et al. 2010, 453), for instance, speech disfluencies. Speech disfluencies are hesitations, or ‘fillers’ (such as ‘um’, ‘er’ and ‘ah’), and false starts are instances where speakers ‘edit’ or rearrange their speech (Corley and Stewart n.d., 2). These are associated with deceptive speech and reportedly increase during lying (Vrij et al. 2000; Porter 1992; Arciuli2010). One form of speech disfluencies includes false starts: re-edits, cut-offs, or rearrangements of speech. Table 6 shows Arias made an observable number of speech disfluencies.

Table 6

| Speech disfluency | Examples | No. of occurrences | % of no. of occurrences |
|-------------------|--|--------------------|-------------------------|
| 'Um' | <ul style="list-style-type: none"> • 'At that point I- Um I sort of...' • 'Um because he was still sort of on his hands and knees' • 'It was um I was terrified' | 17 | 56.7% |
| 'er' | <ul style="list-style-type: none"> • 'I heard um a really louder pop' | 2 | 6.7% |
| 'y'know' | <ul style="list-style-type: none"> • 'And um they just kept arguing back and forth y'know to kill me?' | 1 | 3.3% |
| False starts | <ul style="list-style-type: none"> • 'It was um I was terrified', 'I-it like unbelievable' | 10 | 33.3% |
| | | Total: 30 | 100% |

Focusing solely on Arias's use of 'um', this speech disfluency occurred 56.7% of the total number of occurrences. Arias may have used the speech disfluency 'um' so frequently because, as research suggests, deceivers face an increased cognitive load as well as increased emotional arousals, giving rise to this disfluency feature (Arciuli et al. 2010, 400). The use of disfluency features may also provide time to 'create and maintain false details' (Porter et al. 2008, 31). It is worth nothing, however, that other researchers (cf. Benus et al. 2006; Arciuli 2010) suggest utterances such as 'um' may not be an accurate marker of deceptive speech, since deceivers would control the use of disfluencies to avoid appearing hesitant and untruthful (Humpherys 2010, 16).

Conclusion

Having examined various linguistic markers of deception, linguistic analysis appears to be useful in detecting deception. Arias used strategies of equivocation, negation, and raised doubts about her own testimony to appear more credible. Though there were some instances where my findings did not fit previous research observations, in consideration of the relatively short length of the interview segment, I conclude that there were important indicators of deception in the interview with Arias. In light of these findings, I propose that drawing upon research from both psychology and linguistics – thereby creating a multidisciplinary approach – should be strongly considered in pursuit of a more comprehensive analysis, especially since there are discrepancies within the deception literature. Multidisciplinary research bolsters the validity of findings, it challenges and integrates theories and adds depth to results that may not have been acquired using a single theoretical/methodological approach (Thurmond 2001, 254).

Finally, a disclaimer against generalising from the findings of this study and data is mandated. This project surveyed only one case, which was based on 160 seconds of Arias's speech. Conclusions drawn from a short clip of one person's speech cannot yield generalisations applicable to the entire field of language and deception. Furthermore, having used Galasinski's definition, which assumes the intentionality of the deceiver, it must be borne in mind that it is impossible to gain access to Arias's intentions, and there is no way to empirically prove intent (Vrij 2001). It is unknown whether, for example, Arias suffered from a psychological disorder or condition that led her to give that particular account. Here, psychology may be able to offer something more in the realms of intentionality that linguistics may not be able to answer. I also acknowledge that some of Arias's utterance may have been true. However, I have treated the whole interview segment as deceptive communication, and since there was overwhelming evidence to suggest Arias did lie, I assume that, generally, the majority of the interview was deceptive. In sum, linguistic analyses appear to be a promising, objective method of detecting deception (Arciuli 2010, 397).

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